FILE NOTATIONS

Entered in NID File Checked by Chief ocation Map Pinned Approval Letter Card Indexed Disapproval Letter COMPLETION DATA: Date Well Completed Location Inspected W. ... WW. ... TA.... Bond released GW.... OS.... PA... State or Fee Land LOGS FILED Driller's Log 10-6-71 Electric Logs (No.) E..... I..... Dual I Lat..... GR-N.... Micro.... BHC Sonic GR..... Lat..... Mi-L.... Sonic..... CBLog..... CCLog.... Others....

UNITED STATES DEPARTMENT OF THE INTERIOR

(Other instruction is on reverse side)

Form approved. Budget Bureau No. 42-R1425.

| | | II OF THE I | | MOR | | 5. LEASE DESIGNATI | ON AND SERIAL NO. |
|--|--|-----------------------|---------------|--|-------------|--------------------------------------|---|
| | GEOL | OGICAL SURVI | EY | | _ | 48 | <u></u> |
| APPLICATIO | ON FOR PERMIT | TO DRILL, I | DEEPE | N, OR PLUG I | BACK | 6. IF INDIAN, ALLOT | TEE OR TRIBE NAME |
| 1a. TYPE OF WORK | | | | | | 7. UNIT AGREEMENT | NAME OF THE PARTY |
| | RILL X | DEEPEN [| | PLUG BA | CK 🗀 | | - A |
| b. TYPE OF WELL | GAS 🗀 | • | SI | NGLE MULTI | PLE | 8. FARM OR LEASE | |
| WELL Z | WELL OTHER | | . z o | NE ZONE | <u> </u> | Brennan/Fed | * 1997 |
| | GULF OIL CORPO | ATION | | | | 9. WELL NO. | 36.91 |
| 3. ADDRESS OF OPERATO | | W.1 TO!1 | • | | | 6 | |
| | P. O. Box 2619 | Casper, Wy | omino | 82601 | | 10. FIELD AND POOL | , OR WILDCAT |
| | (Report location clearly as | d in accordance wit | h any S | tate requirements.*) | | Brennan Bot | tons |
| At surface 591 | EWL & 835' MAL (| (NW NW) 7 | hak. | 1 | | 11. SEC., T., R., M., CAND SURVEY OR | |
| At proposed prod. z | one | • | , | BWNWN | 11.7 | | AREA |
| Same | | | | $\Theta \omega / (\omega)$ | | 19-75-21E | |
| 14. DISTANCE IN MILES | S AND DIRECTION FROM NE | AREST TOWN OR POST | T OFFICE | • | | 12. COUNTY OR PARI | SH 13. STATE |
| | | | | • | | Vintah | Utah |
| 15. DISTANCE FROM PRO LOCATION TO NEAR | est JJ; west | of E Line | 16. NO | . OF ACRES IN LEASE | | OF ACRES ASSIGNED HIS WELL | |
| | rig. unit line, il any) | Sec 19 | | 181 | | | |
| DISTANCE FROM PR TO NEAREST WELL, | DRILLING, COMPLETED, | | 19. PR | OPOSED DEPTH | 20. ROTA | RY OR CABLE TOOLS | the state of |
| OR APPLIED FOR, ON 1 | | None | | 7300' | | Rotary | |
| and the second s | whether DF, RT, GR, etc.) Ground (Ungrade | ed) | | | 34 | 7-1-71 | WORK WILL START* |
| 23. | | PROPOSED CASIN | G AND | CEMENTING PROGR | AM | | 1 |
| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FO | от | SETTING DEPTH | T . | QUANTITY OF CEM | ENT |
| 12-1/4" | 3-5/8" | 24# K-55 | | 3001 | Cem | ent to Surfac | e |
| 7-7/8" | 5-1/2" | 14615.5# 1 | | 7300' | As | Needed | |
| | within the Brens | nan Bottoms (| Unit. | | OIL & | GAS CONSER | VATION |
| Proposed Mud | | e en la secon | | | DAIL | iandanakhaluadashini | iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii |
| | 300' Fresh Water 4500' Air or Air | | * | | RY Of | m B-tank | N |
| | 7300' Fresh Wate | | de Mu | a de la companya de l | D : | | mann filmen |
| 4,000 - 1 | 7300 III GSII MEEC | si, LOW SOFT | 43 710 | | 1,. | V | |
| BOP - Hydrau | lically actuated | i double ca | te. i | ad type, rotat | ina he | ad. | |
| .,, | | | | -3 -7P-1 | | | |
| | | | | | | | |
| e e | | | | ger in the second | | | \$ 4 |
| | | | ~ | | | | |
| | | | - | | | | |
| IN ABOVE SPACE DESCRI | BE PROPOSED PROGRAM : If | proposal is to deep | en or p | lug back, give data on p | resent prod | uctive zone and prope | sed new productive |
| preventer program, if a | o drill or deepen direction any. | nally, give pertinent | data o | a subsurface locations a | nd measure | l and true vertical de | oths. Give blowou |
| 24. | • | | | | | | |
| SIGNED | | TIT | LE Ar | ea Production | Manage | DATE Jun | e 29, 1971 |
| L. M. | deral or State office use) | | | | | | <u>- 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 </u> |
| (This space for Fe | | | | | | | |
| PERMIT NO. | 3-047-3010 | 29 | | APPROVAL DATE | <u> </u> | * | <u> </u> |
| | • . • | | | | | | |
| APPROVED BY | OVAT THANY | TIT: | LE | | | DATE | <u> </u> |
| CONDITIONS OF APPR | OVAL, IF ANI. | | | 100 miles (100 miles 100 miles | | | |

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

U.S. GOVERNMENT PRINTING OFFICE: 1963—O-711-396

839-171

cc: Utah Oil and Gas Commission

Phillips Petroleum Company 1300 Security Life Building Denver. Colorado 80202 - Roy A. Burt

Buttram Texhoma Co. 6421 Avondale Oklahoma City, Oklahoma 73116

Geo P. Caulkins, Jr. 315 Majestic Building Denver, Colorado 80202

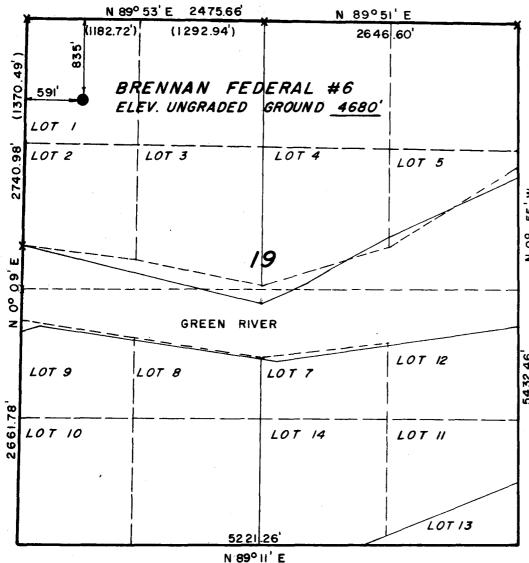
Zions First National Bank Guardian for N. G. Morgan, Sr. One Main Street Salt Lake City, Utah 84110

N. G. Morgan, Jr. Estate Box 11131 Salt Lake City, Humble Oil & Refining Company
Box 120
Denver, Colorado 80201 F. E. Dickerson

Paul T. Walton 1205 Walker Bank Building Salt Lake City, Utah 84111

10/2 19;

T75, R21E, S.L.B.&M.



X = Section Corners Located (Brass Caps)

PROJECT

GULF OIL COMPANY Well location, BRENNAN FEDERAL #6, located as shown in Lot # 1 Section 19, T7S, R2IE, S.L.B. &M. Uintah County, Utah.



ACTUAL SURVEYS MADE BY ME OR UNDER MY BEST OF MY KNOWLEDGE AND BELIE

> REGISTERED LAND SURVEY REGISTRATION Nº 3137

UINTAH ENGINEERING & LAND SURVEYING P.O. BOX Q - 110 EAST - FIRST SOUTH VERNAL, UTAH - 84078

STATE OF UTAH

| SCALE " = 1000' | DATE 26 June, 1971 |
|---------------------|---------------------|
| L.C.K. B.R. | REFERENCES GLO Plat |
| WEATHER. | FILE |
| Hot | GULE OIL CO |

ATES SUBMIT IN DUPLICATE.

(SU)

DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

(See other instructions on reverse side)

Form approved. Budget Bureau No. 42-R355.5.

| 5. LEASE D | | |
|------------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |

| | <u> </u> | | | 1.5 | | | 7 6 6 |
|-------------------|--|---------------------|---------------------------------------|-----------------|--|--------------------------|---|
| WELL CO | OMPLETION (| OR RECON | APLETION | REPORT | AND LOG* | 6. IF INDIAN, AL | LOTTED OR TRIBE NA |
| a. TYPE OF WE | CLL: OIL | GAS WELL | DRY [| Other | | 7. UNIT AGREEME | CNT NAME |
| b. TYPE OF CO | WELL MPLETION: | WELL L | J DET L | Other | | Brennan | |
| NEW T | WORK' DEEP- | PLUG | DIFF. | Other | | S. FARM OR LEAS | |
| WELL LA | OVER L EN | BACK L | LESVR. | Other | | BRENNAN/ | |
| | | | | | | 9. WELL NO. | FEDERAL |
| ADDRESS OF OF | Cerporation | | | | | - 6 | |
| | | | | | | 10, FIELD AND PO | DOL OR WILDCAT |
| P. O. Bo | ELL (Report location | clearly and in a | ccordance with a | n State requir | ementa) * | Brennan | |
| | 1' EWL and 8 | | | , | | | ., OR BLOCK AND SURV |
| 73 | I CHE GILL O | oo one (a | 124 1.00 Y | | | OR AREA | |
| At top prod. i | nterval reported below | "Same | | · | | | |
| At total depth | | | | | | 19-75-21 | Ē , |
| | | Same | 14. PERMIT NO | • | DATE ISSUED | 12, COUNTY OR | 13. STATE |
| | ing the second of the second o | The fact the second | | | | Uintah | Utah |
| . DATE SPUDDED | 16. DATE T.D. REA | CHED 17. DATE | COMPL. (Ready t | to prod.) 18. | ELEVATIONS (DF. R | кв, вт, св, етс.)* [19 | |
| 7-8-71 | 8-7-71 | 9. | 21-71 | | | 679' Ground | |
| . TOTAL DEPTH, MI | | BACK T.D., MD & 7 | VD 22. IF MUI | TIPLE COMPL., | 23. INTERVA | | CABLE TOOLS |
| 7150' | 69 | 75 * | HOW M | IANY* | DRILLED | to TD | None |
| PRODUCING INT | ERVAL(S), OF THIS CO | | BOTTOM, NAME (| MD AND TVD)* | | | 25. WAS DIRECTIONA |
| 5776'-92' | Green River | | | | | | SURVEY MADE |
| 5738'-46' | Orden wives | 65421- | .50' - Gree | n River | | | No |
| TYPE ELECTRIC | AND OTHER LOGS RU | | | | | 1 27. | WAS WELL CORED- |
| Induction | Electric Log | _ Compens | ated Forms | tion Den | efty Loa | | No |
| though tron | riecti ic coa | | G RECORD (Res | | | | |
| CABING SIZE | WEIGHT, LB./FT | | | LE SIZE | <u> </u> | ING RECORD | AMOUNT PULLED |
| 3-5/8" | 24# K-55 | 333' | 13- | 3/4" | Cemented t | o Surface | Mone |
| 5+1/2" | 14-15.581 | | | 7/8" | | 300 Sx - 7033' | None |
| | | | | | Tagain to the same of the same | | |
| - 5/ | (Cement o | ff shallow | gas inter | val) | 2nd Stage | 800 Sx - 2876' | |
| | | NER RECORD | 4 4 1 1 1 1 1 1 | | 30. | TUBING RECORD | |
| SIZE | TOP (MD) B | OTTOM (MD) | SACKS CEMENT* | SCREEN (MI | | DEPTH SET (MD) | PACKER SET (MD |
| None | | | | | 2-7/8" | 6845 | None |
| | | | · · · · · · · · · · · · · · · · · · · | | | | |
| PERFORATION R | ECORD (Interval, size | and number) | | 82. | ACID SHOT ER | ACTURE, CEMENT SQ | TERRE ETC |
| 5776-921 | 2 Jets/ft | 8-18-71 | | | ERVAL (MD) | AMOUNT AND KIND OF | |
| 5738-46 | 4 Jets/ft | 0-10-11 | a de la completa | 6776-92 | 186738-46 | 5000 gal 15% | HCT Actd |
| | | | | | | | |
| 5542-50 | 4 Jets/ft | 8-23-71 | | 6542-50 | • | 5000 gal 15% | HC1 Actd |
| Continued | on Backside |) | | | | | |
| • | | | PRO | DUCTION | | | |
| E FIRST PRODUC | TION PRODUCT | ION METHOD (FI | | | ind type of pump) | WELL STAT | US (Producing or |
| 9-12-71 | Pum | ping | | | | Produ | eing |
| TE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N. FOR | OIĻ—BBL. | GAS-MCF. | WATER—BBL. | GAS-OIL BATIO |
| 9-21-71 | 24 | None | TEST PERIOD | 51 | TSTM | None | |
| W. TUBING PRESS. | . CASING PRESSURE | CALCULATED | OIL-BBL. | GAS—1 | - L | | GRAVITY-API (CORR.) |
| | | 24-HOUR RATE | 51 | TS | TRE I | | 30.9 |
| DISPOSITION OF | GAS (Sold, used for fu | el, vented, etc.) | L | | | TEST WITNESSED | |
| | ease operatf | | pplemented | with bu | tane. | | (東京) (東京) (東京) (東京) (東京) (東京) (東京) (東京) |
| LIST OF ATTACE | | | | | | | |
| .ogs per i | | | | | | | 的复数新复杂。 新黄色表现 |
| | the second secon | and attached inf | ormation is comp | lete and corre | ct as determined for | rom all available record | la . |
| | L. M. WILSON | | | | | | The second second |
| | M. Wilson | | TITLE | rea Prod | uction Mana | ger DATE | ctober 4, 19 |
| | · · · · · · · · · · · · · · · · · · · | | | and the second | | | |

*(See Instructions and Spaces for Additional Data on Reverse Side)

cc - 2 - Utah Oil & Cas Commission 1 - George P. Caulkins, Jr. 2100 Colorado State Fank

1600 Boradway - Denver, Colorado 80202

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24 and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments

should be listed on this form, see item 35.

Hem 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult ocal State or Federal office for specific instructions:

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. | | TO |)P |
|--|----------------|-------------|---|------------------|-------------|-----------------------------|
| | | | | NAME | MEAS. DEPTH | TRUE VERT. DEPT |
| 1. Perto | ration Record | - Continued | | | | |
| 2670- | 1' 4 Jets/ | | 발매장을 다른 이 나는 얼마를 만나가는 맛이 들어 다녔다. | Green River | 3338 | |
| The state of the s | e cemented w | | 요시합니다. 경기 나는 하네 가지 사람들이 사람들은 모 | Formation | 3330 | |
| No Tr | atment This | Zone | | | | |
| | it off shallow | w gas zone) | 그 그로 대통하다 그 중심하다는 사고 하네. 그는 나를 | Parachute Creek | | |
| (Zna | ttempt) | | [조종 [요즘] - 하시 시험처리의 교환님] 그들은 1. | Member Green Riv | er 4698 | |
| | | | | Basal Green Rive | r 5740 | |
| | | | 보고방, 사고일을 찾아 없는 일 보고 하는데 그가 아닌다. | Dasa, Oldan Kita | 3,40 | |
| No DS | '\$ | | | H-Sand | 6735 | |
| N. C. | | | | | | |
| No Co | | | | Wasatch | 6836 | |
| | | | | | | 13 6 |
| | | | [1] 보이 경기 경기 회원 (1225년 - 1426년 1246년 1 1일 보이 경기 경기 기계 (1225년 1246년 124 | | | X |
| | | | | | | 161 |
| | | | 사고 하는 연구를 하는 동생하는 회의 교회는 일이다. | | | - C |
| | | | [조막] 이번에 마음의 (See Fig. 1) 사람은 사람이다. (See Fig. 1) | | | $\mathcal{K}_{\mathcal{O}}$ |

SUBMIT IN DUP TED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

TE: ther instructions on reverse side)

Sorm approved. Budget Bureau No. 42-R355.5.

5. LEASE DESIGNATION AND SERIAL SO

| GEOLOGIC | CAL SURVEY | | _ | Fee |
|--|---|---------------------------------|--|-----------------------------|
| WELL COMPLETION OR RECC | MPLETION I | REPORT AND LO | 3 * 6. IF INDIAN, AL | LOFTEE OR TRIBE NAME |
| 1a. TYPE OF WELL: OIL WELL WELL | DRY D | Other | 7. UNIT AGREEME | NT NAME |
| b. TYPE OF COMPLETION: | | | Brennan | Rottoms |
| NEW WORK DEEP BACK | DIFF. RESVR. | Other | S. FARM OR LEAS | |
| 2. NAME OF OPERATOR | 2 | | BRENNAN/ | FEDERAL |
| Gulf Oil Corporation | | | 0. WELL NO. | 国际设施 医鼻囊丛 |
| 3. ADDRESS OF OPERATOR | · 505 | | 10. FIELD AND PO | OF WILDOW |
| P. O. Box 2619 4. LOCATION OF WELL (Report location clearly and in | accordance with an | u State requirements)* | | |
| | | y Drave requirements | Brennan I | OCCOMS OR BLOCK AND SURVEY |
| At surface 591' EWL and 835' SNL | (MM MM) | | OR AREA | |
| At top prod. interval reported below | | | | |
| At total depth Same | 트 경우 학문 | | 1 9-7S-211 | |
| Same | 14. PERMIT NO. | DATE ISSUED | 12. COUNTY OR | 13. STATE |
| | l godina sa sa siya. Maasa arasan unances sa | | Uintah | Utah |
| 5. DATE SPUDDED 16. DATE T.D. REACHED 17. DA | TE COMPL. (Ready to | prod.) 18. ELEVATIONS (D | | ELEV. CASINGHEAD |
| 7-8-71 8-7-71 | 9-21-71 | I | 4679' Ground | |
| 20. TOTAL DEPTH, MD & TYD 21. PLUG, BACK T.D., MD | & TVD 22. IF MUL | TIPLE COMPL., 23. INTE | RVALS ROTARY TOOLS | CABLE TOOLS |
| 7150' 6975' | HOW M | ANY* DRII | Surface | None |
| 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TO | OP, BOTTOM, NAME (A | ID AND TVD)* | | 25. WAS DIRECTIONAL |
| 6776'-92' Chan Bivon | | | | SURVEY MADE |
| 6738'-46' Green River | '-50' - Green | n River | 를 바라 되었다. 등 기 및 기 등 기 등 기 등 기 등 기 등 기 등 기 등 기 등 기 | No |
| 6. TYPE ELECTRIC AND OTHER LOGS RUN | 30 <u>41 CC1</u> | 1 101701 | 27. | WAS WELL CORED |
| Induction Electric Log - Comper | nsated Format | tion Density Log | | No |
| S. CA | SING RECORD (Rep | ort all strings set in well) | | 7 7 3 2 2 3 3 3 |
| CASING SIZE WEIGHT, LB./FT. DEPTH S | SET (MD) HO | LE SIZE CEM | ENTING RECORD | AMOUNT PULLED |
| 8-5/8" 24# K-55 333 | | | to Surface | None |
| 5-1/2" 14-15.5&17# K-55 | 7033' 7-7 | 7/8" 1st Stage | <u> 300 Sx - 7033'</u> | None None |
| | | | | |
| (Cement off shallo | | /al) 2nd Stage | 2 800 Sx - 2876' TUBING RECORD | |
| | SACKS CEMENT* | SCREEN (MD) SIZE | DEPTH SET (MD) | PACKER SET (MD) |
| SIZE TOP (MD) BOTTOM (MD) | SACKS CEMENT | | | |
| None | | 2-7/8' | ' 6845' | None |
| 1. PERFORATION RECORD (Interval, size and number) | | 32. ACID, SHOT, | FRACTURE, CEMENT SQ | HEFZE ECO |
| the control of the co | | DEPTH INTERVAL (MD) | AMOUNT AND KIND OF | |
| 6776-92' 2 Jets/ft 8-18-71 6738-46' 4 Jets/ft | | 6776-92'&6738-46 | | HC1 Acid |
| 730-40 4 0263/16 | 2 8 | 0//0-92 00/30-40 | ' <u>5000 gal 15% l</u> | ICT ACTE |
| 6542-50' 4 Jets/ft 8-23-71 | | 6542-50' | 5000 gal 15% l | IC1 Acid |
| (Continued on Backside) | | 00-12-00 | <u> </u> | ior nera |
| 3.* | PRGI | DUCTION | 3.42 F.U.4 | 1. BAA 1934 A |
| ATE FIRST PRODUCTION PRODUCTION METHOD. | (Flowing, gas lift, pr | imping—size and type of pum | p) WELL STAT shut-in) | US (Producing or |
| 9-12-71 Pumping | | | Produc | cina |
| ATE OF TEST HOURS TESTED CHOKE SIZE | PROD'N. FOR TEST PERIOD | OIL-BBL. GAS-MC | | GAS-OIL RATIO |
| 9-21-71 24 None | | 51 TSTN | 1 None | |
| LOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RA | OIL-BBL. | GAS-MCF. | | GRAVITY-API (CORR.) |
| | 51 | TSTM | None | 30.9 |
| 4. DISPOSITION OF GAS (Sold, used for fuel, vented, etc | | 100 | TEST WITNESSED | Bx |
| Used for lease operations and s | | with butane. | <u>1 선생성으로</u> 함상소문 경 요리 | <u> </u> |
| Logs per item 26 6. I hereby certify that the foregoing and attached | DOST C | | d from all available record | tradicalit |
| Da ale A | | Silver and correct as determine | a riom an available record | |
| SIGNED Im Milion | TITLE AY | ea Production Man | ager DATE OC | tober 4, 1971 |
| L. M. Wilson | | | - | |

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

| 37. | 37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES | | | | | 38. | GEOLO | GIC MARKERS | | | | | | |
|--|---|---------------------------|---------------------------------------|--|--------|---|------------|-------------|--------------|-----------|-------|-------------|-------------|------------------|
| | FORMA | TION | тор | воттом | | DI | SCRIPTION, | CONTENTS, | ETC. | et \ | 7-1 | NAME | TO |)P |
| 4 | | 3. | | | | | : | 1 | | | | NAME | MEAS. DEPTH | TRUE VERT. DEPTH |
| : [| 31. <u>P</u> | Perforat | ion Record | Continued | | | 1 41 2 | e false | | | 1 | * 1 | | |
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| | | | off shallow | gas zone) | | 10 10 | <u> </u> | | [] | | Para | chute Creek | | |
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| ************************************** | | | | | h 3 | | 1 600 | | it. 5 | | Basa | l Green Riv | er 5740 | |
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UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

| Buds | et Burenu No. 42-RJ66.5. |
|--------------|--------------------------|
| LAND OFFICE | |
| LEASE NUMBER | |
| Unit Brenna | n Botton |

LESSEE'S MONTHLY REPORT OF OPERATIONS

| Agent's | addr | ess P | 00. | Box | <u> 2619</u> | | Coi | mpany | Gulf O | il Corr | oration | on | |
|---|-----------------------------|----------------------|---------------|------------------|---------------------------|---------|----------------------------------|--|--|--|--|--|---------------------------|
| Phone | | | .307- | r, Wy 235-1 | oming8260 | · | Sig | ned T.& L. ent's title . | Sen | ior Cle | rk | ل | · |
| Sec. and 1/4 of 1/4 | | Range | WELL | DATS PRODUCED | | GRAVITY | Cu. Fr. or Gas (In thousands) | GALLONS OF GASOLINE RECOVERED | BARRELS OF WATER (If none, so state) | R (If drilling, de | EMARKS | r gasolia |) |
| ONPERTIC | IPAT | ING / | \REA | | | | | | | | | | |
| E SE 17 | 7s | 21E | 3 | 21 | 319 | 29.1 | 61 e | st. | None | <u>si</u> | | and the same of th | |
| W NW 19 | 7S | 21E | 6 | 0 | Q | | . 0 | COMPANY OF THE PARTY OF THE PAR | None | Lead | Line | SI | for win |
| TOTA | L | arregue arregue | | | 319 | 29.1 | 61 | | None | The state of the s | the state of the s | | , |
| | | VELL | <i></i> #3 | | | | | | WELL | <u>#6</u> | | | |
| IL | - | | | - | | | • | OIL | | | | | • |
| on hand a Produced Sold duri Inavoidat rea On hand a | duri ng m ly 1 son | ng moonth | onth | | th 494 319 642 0 | | | Produced Sold dur Unavoida r | at begins during month ly lost tason at end of | ont h | | ı | 369 0 0 0 369 |
| GAS | | | | | | | | GAS | | | | | |
| Sold Flared/Vo Jsed On/O | } | 1 | | | | | | Sold Flared/V Used On/ | ented Off Lease | | | | 0 0 .61 |
| 2 - 1 2 - 1 1 - 0 2 - 1 | ltah Exxor Phill | Dil n, Mi Lips | & Ga: dlan | 4 | Bartlesvi | | | WATER Disposit Pit Injected | ion None None None Brennan | Federa | 1 | | |

Note.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form 9-329 Tanuary 1950)

| DEPAR | UNITED STATES TMENT OF THE INTI | | TE* Form approved. Budget Bureau No. 42-R1424 5. LEASE DESIGNATION AND SERIAL NO. |
|--|--|---|--|
| SUNDRY NC (Do not use this form for pro- Use "APPL | OTICES AND REPORT posals to drill or to deepen or place of the posals to drill or to deepen or place of the posals to drill or to deepen or place of the posals to drill or to deepen or place of the posals of the | S ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME |
| OIL WE'L X WELL OTHER | | RECEIVED | 7. UNIT AGREEMENT NAME |
| Gulf Oil Company 3. ADDRESS OF OPERATOR | | DIVISION OF OIL, | 8. FARM OR LEASE NAME Brennan/Federal 9. WELL NO. |
| P. O. Box 2619, Cas Location of Well (Report location See also space 17 below.) At surface | | | 6 10. FIELD AND POOL, OR WILDCAT Brennan Bottoms 11. SEC., T., B., M., OR BLK. AND SURVEY OR AREA |
| 591' EWL and 835' SI | 15. ELEVATIONS (Show wheth | er DF, RT, GR, etc.) | 19-7S-21E 12. COUNTY OF PARISH 13. STATE Uintah Utah |
| FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL | PULL OR ALTER CASING MULTIPLE COMPLETE ABANDON* CHANGE PLANS | WATER SHUT-OFF FRACTURE TREATMEN *********************************** | NG X ABANDONMENT* |
| 17. DESCRIBE PROPOSED OR COMPLETED proposed work. If well is dire nent to this work.) * | OPERATIONS (Clearly state all per- | | results of multiple completion on Well Recompletion Report and Log form.) t dates, including estimated date of starting any vertical deaths for all markers and vones perti |
| | | | systemat acreas for all markets and source perce |
| see attachment | | | yettem weptus tot an marrors and ayets per- |
| see attachment | | | |

SM

Make reports complete, such as description of casing . . . Show, as soon as known, name of contractor, type of rig, and kind of fuel . . . In guide margin show casing (as, 7"), "Contractor," "Shot," "Acidized," etc.

GUIDE MARGIN

DATE

YEAR 1977

A. F. E.

LEASE AND WELL Brennan Federal No. 6

BRENNAN BOTTOMS FIELD
Brennan Federal No. 6
19-7S-21E, Uintah Co., UT
.9909090

5/23/78

Reconditioning. No Gulf AFE. Pressured tbg to 1200#. RU Howco & acidized dn tbg/csg annulus w/ 2000 gal 15% HCL acid containing 4 gal 3N & 6 gal HAI-50. Flushed w/ 3000 gal fm wtr w/ 55 gal Musol A & 6 gal 3N. SION. Returned well to production. Work begun 4-11-78, complete 4-12-78. Prod prior to acid, 14 BOPD & 0 BWPD. Prod after acid on 4-23-78 46 BOPD & 47 BWPD. Prod after acid on 4-23-78 17 BOPD & 0 BWPD. DROP.

Gulf Oil Exploration and Production Company

L. G. Rader PRODUCTION MANAGER - CASPER AREA

July 2, 1985

P. O. Box 2619 Casper, WY 82602

State of Utah Division of Oil, Gas and Mining 355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203

RECEIVED

JUL 05 1985

Gentlemen:

GAS & MI

Effective July 1, 1985, the corporate name of Gulf Oil Corporation was changed to Chevron U.S.A. Inc. This will be applicable to all operations, agreements, contracts, documents, and permits of Gulf Oil Corporation in the area of and/or under your jurisdiction.

The attached information is being furnished to facilitate the name change of appropriate records under your authority, and submitted as our understanding of the procedure required to accomplish the change.

Please advise this office or the office listed on the attachments should additional information be needed.

Sincerely

L. G. Rader

KWR/mdb

Attachments



| | <u>Lease Name</u> | <u>Field</u> | Section | Township | Range | County | State |
|-----------------|----------------------------|-----------------|---------|----------|----------|------------------|-------|
| | Anderson, Owen 1-28A2 | Bluebell | 28 | 15 | 2W | Duchesne | UT |
| | Antelope Draw Fed. 1-19-2C | Natural Buttes | 19 | 88 | 22W | Uintah | UT |
| · | Antelope Draw Fed. 2-17-4C | Undesignated | 17 | 8\$ | 22W | Uintah | UT |
| į, t | Antelope Draw Fed. 3-17-3C | Natural Buttes | 17 | 88 | 22W | Uintah | UT |
| 4) ³ | Black Jack Ute 1-142D | Altamont | 14 | 48 | 6W | Duchesne | UT |
| T | Blue Bench/Ute 1-7C4 | Altamont | 7 | 35 | 4W | Duchesne | UT |
| | Bobo Ute 1-16B2 | Altamont | 16 | 45 | 6W | Duchésile | UT |
| Î | Brennan Federal #1 | Brennan Bottoms | 13 | 7S | 20E | Uintah | UT |
| 1 | Brennan Federal #3 | Brennan Bottoms | 17 | 85 | 22W | Uintah | UT |
| | Brennan Federal #6 | Brennan Bottoms | 19 | 7S | 21E | Uintah | UT |
| | Brennan Federal #8 | Brennan Bottoms | 17 | 7S | 21E | Uintah | UT |
| | Campbell Ute/State 1-7B1 | Bluebell | 7 | 2S | 1W | Duchesne | UT |
| | Campbell,Darwod Ute 1-12B2 | Bluebell | 12 | 25 | 2W | Duchesne | UT |
| | Cheney 1-33-A2 | Bluebell | 33 | 1S | 2W " | Duchesne | UT |
| | Cheney 2-33-A2 | Bluebell | 33 | 15 | 2W | Duchesne | UT |
| | Costas Federal 1-20-4B | Gypsum Hills | 20 | 88 | 21E | Uintah | UT |
| | Costas Federal 2-20-3B | Undesignated | 20 | 8\$ | 21E | Uintah | UT |
| | Costas Federal 3-21-1D | Undesignated | 21 | 8\$ | 21E | Uintah | UT |
| | Dillman 2-2BA2 | Bluebell | 28 | 15 | 2W | Duchesne | UT |
| | Duchesne Co. Snyder 1-9C4 | Altamont | 9 | 3S | 4W | Duchesne | UT |
| | Duchesne Co. Tribal 1-3C4 | Altamont | 17 | 3S | 4W | Duchesne | UT |
| | Duchesne County 1-17C4 | Altamont | 17 | 3S | 4W | Duchesne | UT |
| | Evans Ute 1-17B3 | Altamont | 17 | 2S | 3W | Duchesne | UT |
| | Evans Ute 2-27B3 | Altamont | 17 | 2S | 3W | Duchesne | UT |
| | Fortune Ute Fed. 1-11C5 | Altamont | 11 | 35 | 5W | Altamont | UT |
| | Freston State 1-8B1 | Bluebell | 8 | 2S | 1W | Duchesne | UT |
| | Geritz Murphy 1-6C4 | Altamont | 6 | 35 | 4W | Duchesne | UT |
| | Gypsum Hills Unit Fed. #1 | Gypsum Hills | 17 | 8S | 21E | Uintah | UT |
| | Gypsum Hills Unit Fed. #3 | Gypsum Hills | 17 | 8S | 21E | Uintah | UT |
| | Gypsum Hills Unit Fed. #4 | Gypsum Hills | 19 | 8S | 21E | Uintah | UT |
| | Gypsum Hills Unit Fed. #6 | Gypsum Hills | 20 | 85 | 21E | Uintah | UT |
| | Hamblin 1-26A2 | Bluebell | 26 | 15 | 2W | Duchesne | UT |
| | Hamblin 2-26A2 | Bluebell | 26 | 1S | 2W | Duchesne | UT |
| | Holmes/Federal #1 | Horseshoe Bend | 5 | 7S | 22E | Uintah | UT |
| | Jenks Robertson Ute 1-1B1 | Bluebell | 1 | 2S | 1W | | UT |
| | Joan Federal #1 | Undesignated | 19 | 7S | 21E | Uintah Uintah | |
| | John 1-3B2 | Bluebell . | 3 | 2S | 21E | | UT |
| | John 2-3B2 | Bluebell | 3 | 2S | 2W 2W | | UT |
| ` | , | DIACDCII | 5 | LJ | L W | Duchesne | UT |

06/27/85 leases gulf operated/file2 Form 3160-5 November 1983) Formerly 9-331)

FRACTURE TREAT

REPAIR WELL

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON* CHANGE PLANS

SHOOTING OR ACIDIZING

| ेForm ap | proved. | |
|----------|-----------|-------------|
| Budget | Bureau No | . 1004-0135 |
| Expires | August 3 | 1, 1985 |

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

| 5. | LEASE | DESIGNATION | AND | SERIAL | NO. |
|----|-------|-------------|-----|--------|-----|
| | _ | | | | |

| nerly 9-331) | BUREAU OF LAND MANAGEMENT 0708 | 06 | Fee | | |
|--------------|----------------------------------|----|---------------|------------|------------|
| SUN | DRY NOTICES AND REPORTS ON WELLS | | 6. IF INDIAN, | ALLOTTEE O | R TRIBE NA |

| (Do not use this form for propos Use "APPLICA | als to drill or to deepen or plug back to a different reservoir. TION FOR PERMIT—" for such proposals.) | | | |
|--|---|--------|---|-----------|
| I | | | 7. UNIT AGREEMENT N | |
| WELL X GAS OTHER | | *7 | Brennan Bot | |
| 2. NAME OF OPERATOR | | | 8. FARM OR LEASE NA | ME |
| Chevron U.S.A. Inc. | | | Brennan/Fed | eral |
| 3. ADDRESS OF OPERATOR | | 1- 1/ | 9. WELL NO. | |
| P.O. Box 599, Denver, | Colorado 80201 | 4.5 | 6 | |
| LOCATION OF WELL (Report location cl See also space 17 below.) | early and in accordance with any State requirements.* | | 10. PIELD AND POOL, O | R WILDCAT |
| At surface | | ** * | Brennan Bot | toms |
| | (1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1- | | 11. SEC., T., E., M., OR SURVEY OR ARE | |
| 591' FWL and 835' FNL | (NW/NW) | 1 | | - |
| • | | | Sec. 19, T7 | S, KZIE |
| 14. PERMIT NO. | 15. ELEVATIONS (Show whether DF, RT, GR, etc.) | . 7 | 12. COUNTY OR PARISI | 13. STATE |
| 43-047-30109 | 4679' GR | . 5 | Uintah | Utah |
| | D. T. I. Itaria Nia . (Niasa Dana | - 0 | uL D_4 | |
| Check Ap | propriate Box To Indicate Nature of Notice, Report, | , or C | ther Daia | |
| NOTICE OF INTEN | rion to: | UPSEQU | ENT REPORT OF: | |

(Norz: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) (Other) Request Approval to Flare Gas X 17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Approval is requested to flare up to 25 MCF/D of casinghead gas at the wellsite. well is currently flaring less than 1 MCF/D.



DIVISION OF OIL, GAS & MINING 3-BLM

3-State

1-BIA

1-GDE

3-Drilling

1-File

| | 1 | | | | | | ÷. | | |
|-----|--|-------|-----------|-----------|------|------|------|-----|------|
| 18. | I hereby certiff) that the toregoing is true and correct | | | | 1 | | | | |
| | SIGNED & Fulpabrier | TITLE | Associate | Environme | ntal | DATE | June | 30, | 1986 |
| | | | Special: | | 3 7 | | | | |
| 7 | (This space for Federal or State office use) | | | | | | | | |
| | | | | | | 7 1 | | | |
| Ė | APPROVED BY | TITLE | | | * | DATE | | | |
| | CONDITIONS OF APPROVAL, IR ANY: | | | | | | | | |

Form 3160-5

| SUBMIT | | | | |
|------------|-----|---------|----|-----|
| (Other 1 | | uctions | ao | re- |
| warea aide | ,) | | | |

| Form approved. | |
|--------------------|----------|
| Budget Bureau No. | 1004-013 |
| Expires August 31, | 1985 |

| UNITED STATES | SUBMIT IN TRIPLICATE |
|----------------------------|----------------------|
| DEPARTMENT OF THE INTERIOR | verse side) |

| Formerly 9-331) DEPARTM | SENT OF THE INTERIC J OF LAND MANAGEMENT | OR (Other lustructions on reverse side) | 5. LEASE DESIGNATION Fee | |
|--|---|---|--|------------------------|
| SUNDRY NOTE | CES AND REPORTS C | N WELLS ack to a different reservoir. | 0. IF INDIAN, ALCOTTEE 10200 | 9 |
| OIL X CAS WELL OTHER 2. NAME OF OPERATOR | | | Brennan Botto | ms |
| Chevron U.S.A. Inc | | | Brennan / Fed | leral |
| P. O. Box 599. De 1. Location of Well (Report location cle See also space 17 below.) At surface 591' FWL: and 835' FNL N | | State requirements.* | 6 10. FIRLD AND POOL, OF Brennan Botto 11. SMC, T., R., M., OR B SURVEY OR AREA | <u>ms-Green R</u> iver |
| 14. PERMIT NO. | 15. ELEVATIONS (Show whether DF, | RT, GR, etc.) | S 19, T7S, R2 | 13. STATE |
| API 43-047-30109 Check Api | KB 4691 ' Propriate Box To Indicate No | ature of Notice, Report, or C | l Uintah Diher Data | <u>l Utah</u> |
| NOTICE OF INTENT | TION TO: | | ENT REPORT OF: | |
| FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL (Other) | ULTIPLE COMPLETE BANDON* HANGE PLANS | Completion or Recompl | REPAIRING WALTERING CA ABANDONMEN of multiple completion of the c | on Well |
| 17. DESCRIBE PROPOSED OR COMPLETED OPER proposed work. If well is direction nent to this work.) • It is proposed to add proposed to add proposed. | nally drilled, give subsurface location | ons and measured and true vertice | it depens for all markers | s and gones perce- |

MIRU. Pull rods and pump. N/U BOPE and test. Pull production string. 1.

2. Clean out to PBTD @ 6975'.

CONDITIONS OF APPROVAL, IF ANY:

Perforate the following intervals w/4 SPF from Schlum. FDC-GR dated 8/9/71:

Interval 6730-38 6705-16 6694-6700 6682-86 6650-58 6630-36

Acidize perfs @ 6682-6746' with 4000 gals 15% HCl.

Acidize perfs @ 6630-58' with 2000 gals 15% HCl. 5.

Swab back load from perfs @ 6630-6746'.

Run production tubing. N/D BOPE. N/U wellhead.

Run pump and rods. Release rig and return well to production.

DIVISION OF OIL, GAS & MINING

| 3 - BLM 3 - State | l - MKD 3 - Drlg | | |
|------------------------------|------------------------------|------------------------|-----------------------|
| 18. Chereby certify that the | oregoing is true and correct | ritum Office Assistant | DATE 10/9/87 |
| (This space for Federal o | r State office use) | TITLE | APPROVED BY THE STATE |

OF UTAH DIVISION OF OIL, GAS, AND MINING

*See Instructions on Reverse Side

| STA | TE OF UTAH | SUBMIT IN TRIPLICATE. | | |
|--|--|--|--|-----------------|
| OIL & GAS CONS | ERVATION COMMISSION | (Other instructions on reverse side) | 5. LEASE DESIGNATION | 101 |
| CHAINDY MOT | CEC AND DEPONTS ON | 1 \\(\mathrea{\pi}\) | Fee POL | |
| SUNDRY NO!! (Do not use this form for propose | CES AND REPORTS ON als to drill or to deepen or plug hack | N WELLS | 000 | ~ 4 4 |
| Use "APPLICA | als to drill or to deepen or plus hack TION FOR PERMIT—" for the break | the sale sale sale sale | 030' | 743 |
| OIL WELL OTHER | In Line | | Brennan Bo | ttome |
| 2. NAME OF OPERATOR | | FEB 29 1988 | 8. FARM OR LBASE NAM | (3 |
| Chevron U.S.A. Inc. | Room 11111 | | Brennan/Fe | deral |
| P. O. Box 599 Denv | on CO 00201 | DIVISION OF | 9. WELL NO. | |
| 4. LOCATION OF WELL (Report location closes also space 17 below.) | early and in accordance with any Sta | I GAS & MINING te requirements. | 10. PIELD AND POOL, OF | R WILDCAT |
| 591' FWL 835' FNL (| | | 11. SHC., T., B., M., OR H SURVEY OR ARBA | |
| 14. PERMIT NO. | (3) | | Sec. 19, T7S, | R21E |
| 43-047-30109 | 15. BLEVATIONS (Show whether DF, RT, KB 469] | GR, etc.) | Uintah | 1 |
| | | () | | <u>Utah</u> |
| NOTICE OF INTENT | propriate Box To Indicate Nati | | INET DOTO | |
| | | | 7 | |
| | ULTIPLE COMPLETE | WATER SHUT-OFF FRACTURE TREATMENT | REPAIRING W | |
| | BANDON* | SHOOTING OR ACIDIZING X | ABANDONMEN | |
| REPAIR WELL | IANGE PLANS | (Other) | of multiple completion | D. Wall |
| (Other) 17. DESCRIBE PROPOSED OR COMPLETED OPER proposed work. If well is direction | | Completion or Recomple | etion Report and Log for | m.) |
| Brennan Federal #6 was p | | | i depuis ivi dii maineis | and some pertu- |
| Cleaned out to PBTD Perforated 6730-38 (6630-36 (G₃) @ 4 SPF Acidized perfs 6746- | H, H ₂); 6705-16 (G ₅), , 90° Ø correlated to 6542 (H _{2G1}) w/6000 g g. Landed tbg @ 6851', n rods. | 6694-6700 (G ₅), 668 Schl. FDC-GR 8/9/71 al 15% HCl. Swabbed | 2-86 (G ₄), 665 | |
| 3 - State 3 - BLM 1 - EEM 1 - MKD 3 - Drlg 1 - PLM 1 - Sec. 724-C 1 - File | | | | |
| 18. I hereby certify that the foregoing is | true and correct | <u> </u> | | |
| SIGNED JA LALLON | TITLE Tech | nical Assistant | DATE2/2 | 5/88 |
| (This space for Federal or State office | use) | | | |
| APPROVED BY | TITLE | | DATE | |

<u>___</u>N

| tank well head Tu | e heater |
|--------------------|----------|
| | |
| | np jack |
| | |
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| | |

42.382 100 SHEETS 5 SQUARE 42.382 100 SHEETS 5 SQUARE 42.383 200 SHEETS 5 SQUARE 5 S

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Form 3160-5 *(June 1990)

Conditions of approval, if any

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Budget Bureau No. 1004-0135 Expires: March 31, 1993

Lease Designation and Serial No.

| SUNDRY NOT Do not use this form for proposals to drill or | FICES AND REPORTS ON WELLS | | |
|---|--|--|---|
| | ION FOR PERMIT" for such proposals | 6. If Indian, Allo | ttee or Tribe Name |
| | | | N/A |
| | T IN TRIPLICATE | 7. If Unit or CA, | Agreement Designation |
| Type of Well Oil Gas | | BREI | NNAN BOTTOM UNIT 14-08-001-556 |
| X Well Well Other MULTIPL | E WELLS LIST ATTACHED | 8. Well Name and | d No. |
| 2. Name of Operator CHEVRON U.S.A. INC. | | 9. API Well No. | |
| 3. Address and Telephone No | | | |
| 11002 E. 17500 S. VERNAL, UT 84078-8526 | (801) 78 | 11-4300 10. Field and Poo | l, or Exploratory Area |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) | | | AN BOTTOM-GREEN RIVER |
| | | 11. County or Par | UINTAH, UTAH |
| | | | ORTAH, OTAH |
| 12. CHECK APPROPRIATE BO | OX(s) TO INDICATE NATURE OF NOTICE, REPO | ORT, OR OTHER | DATA |
| TYPE OF SUBMISSION | TYPE OF ACTIO | | |
| Notice of Intent | Abandonment | Change of Plan | s |
| 1 | Recompletion | New Constructi | on |
| X Subsequent Report | Plugging Back | Non-Routine Fr | acturing |
| | Casing Repair | Water Shut-Off | |
| Final Abandonment Notice | Altering Casing | Conversion to I | njection |
| | X Other CHANGE OF OPERATOR | Dispose Water | |
| | | (Note) Report results of Completion or Recomple | multiple completion on Well etion Report and Log form.) |
| Describe Proposed or Completed Operations (Clearly state all pertinent of give subsurface locations and measured and true vertical depths for all management. | details, and give pertinent dates, including estimated date of starting any proposed work narkers and zones pertinent to this work) | :. If well is directionally drille | ed, |
| As of January 1, 2000 Chevron U.S.A. Inc. resigns as The Unit number is 14-08-001-556 effective June 12, | Operator of the Brennan Bottoms Unit. 1953. | | |
| The successor operator under the Unit Agreement will Shenandoah Energy Inc. 475 17th Street, Suite 1000 | l be | | |
| Denver, CO 80202 Agreed and accepted to this 29th day of December, 19 | 00 | | · |
| | עע | KE | CEIVED |
| Shenandqah Energy Inc. By: Mthull Shenandqah | | DEC | 3 0 1999 |
| Mitchel L. Solich President | | DIVISION | OF OIL, GAS & MINING |
| 14. I hereby certify that the foregoing is true and correct. Signed A. E. Wacker Q. F. We Cke | Title Assistant Secretary | Date | 12/29/1999 |
| (This space for Federal or State office use) | | | |
| Approved by: | Title | Date | |

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155

RECEIVED

FEB 0 7 2000

DIVISION OF OIL, GAS AND MINING

IN REPLY REFER TO UT-931

February 4, 2000

Shenandoah Energy Inc. Attn: Rae Cusimano 475 17th Street, Suite 1000 Denver, Colorado 80202

Re:

Brennan Bottom Unit

Uintah County, Utah

Gentlemen:

On December 30, 1999, we received an indenture whereby Chevron U.S.A. Inc. resigned as Unit Operator and Shenandoah Energy Inc. was designated as Successor Unit Operator for the Brennan Bottom Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective February 4, 2000. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Brennan Bottom Unit Agreement.

Your statewide (Utah) oil and gas bond No. 0969 will be used to cover all operations within the Brennan Bottom Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks Chief, Branch of Fluid Minerals

Enclosure

CC:

Chevron U.S.A. Inc.

pcc:

Field Manager - Vernal (w/enclosure)

Trysion of Oil Gas & Mining

Minerals Adjudication Group U-932 File - Brennan Bottom Unit (w/enclosure)

MMS - Data Management Division

Agr. Sec. Chron Fluid Chron

UT931:TAThompson:tt:2/4/00

Division of Oil, Gas and Mining

OPERATOR CHANGE WORKSHEET

A-KAS 2. CDW 5-\$J 1 6-FILE 4-KAS 4-KAS 5-\$J 1 6-FILE

12/30/1999

08/09/2000

08/15/2000

Enter date after each listed item is completed

X Change of Operator (Well Sold)

Designation of Agent

Operator Name Change (Only)

The operator of the well(s) listed below has changed, effective:

Merger

01/01/2000

| FROM: (Old Operator): | | TO: (New 0 | Operator): | | | | | | |
|----------------------------|--------------|-----------------------|-------------|----------|---------|---------|--|--|--|
| CHEVRON USA INC | | SHENANDOAH ENERGY INC | | | | | | | |
| Address: 11002 E. 17500 S. | | Address: | 11002 E. 17 | '500 S. | | | | | |
| VERNAL, UT 84078-8526 | | VERNAL, U | Γ 84078 | | | | | | |
| Phone: 1-(435)-781-4300 | | Phone: 1-(435 | 5)-781-4300 | | | | | | |
| Account No. N0210 | | Account No. | | | | | | | |
| | CA No. | | Unit: | BRENNAN | воттом | | | | |
| WELL(S) | | | | | | | | | |
| NAME | API | ENTITY | SECTION | TOWNSHIP | RANGE | LEASE | | | |
| BRENNAN FEDERAL # 5 (WIW) | 43-047-15420 | 5261 | 18 | 07S | 21E | FEDERAL | | | |
| BRENNAN FEDERAL # 6 | 43-047-30109 | 5261 | 19 | 07S | 21E | FEE | | | |
| BRENNAN FEDERAL # 11 (WIW) | 43-047-32772 | 5261 | 18 | 07S | 21E | FEDERAL | | | |
| BRENNAN FEDERAL 1 | 43-047-15417 | 5260 | 13 | 07S | 20E | FEDERAL | | | |
| BRENNAN FEDERAL 9 | 43-047-32477 | 5261 | 18 | 07S | 21E | FEDERAL | | | |
| BRENNAN FEDERAL 10 | 43-047-32771 | 5261 | 19 | 07S | 21E | STATE | | | |
| BRENNAN FEDERAL 12 | 43-047-32779 | 5261 | 18 | 07S | 21E | FEDERAL | | | |
| BRENNAN FEDERAL 14 | 43-047-32774 | 5261 | 18 | 07S | 21E | FEDERAL | | | |
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(R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on:

The new company has been checked through the Department of Commerce, Division of Corporations Database on:

(R649-8-10) Sundry or legal documentation was received from the **NEW** operator on:

| 4. | Is the new operator registered in the State of Utah: YES Business Number: 224885 |
|-----------|--|
| 5. | If NO, the operator was contacted on: |
| 6. | Federal and Indian Lease Wells: The BLM and or the BIA has approved the (merger, name change, or operator change for all wells listed on Federal or Indian leases on: |
| 7. | Federal and Indian Units: The BLM or BIA has approved the successor of unit operator for wells listed on: N/A |
| 8. | Federal and Indian Communization Agreements ("CA"): The BLM or the BIA has approved the operator change for all wells listed involved in a CA on: N/A |
| 9. | Underground Injection Control ("UIC" The Division has approved UIC Form 5, Transfer of Authority to Inject, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: |
| | ATA ENTRY: Changes entered in the Oil and Gas Database on: 08/15/2000 |
| 1. | |
| 2. | Changes have been entered on the Monthly Operator Change Spread Sheet on: 08/15/2000 |
| 3. | Bond information entered in RBDMS on: N/A |
| 4. | Fee wells attached to bond in RBDMS on: N/A |
| ST | State well(s) covered by Bond No.: 159261960 |
| | E WELLS - BOND VERIFICATION/LEASE INTEREST OWNER NOTIFICATION: |
| 1. | (R649-3-1) The NEW operator of any fee well(s) listed has furnished a bond: YES |
| | The FORMER operator has requested a release of liability from their bond on: N/A The Division sent response by letter on: N/A |
| 3. | (R649-2-10) The FORMER operator of the Fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on:08/15/2000 |
| | LMING: All attachments to this form have been MICROFILMED on: 3.5.01 |
| | LING: ORIGINALS/COPIES of all attachments pertaining to each individual well have been filled in each well file on: |
| CO | DMMENTS: |
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| Well | Lease | | | | |
|--------------------|-----------|--------------|-----------|------|---|
| BRENNAN FEDERAL 1 | | API Number | Status | Type | |
| BRENNAN FEDERAL 5 | U-065342 | 43-047-15417 | Α | OIL | Location for Sundry |
| BRENNAN FEDERAL 6 | SL-071745 | 43-047-15420 | Δ | INJ | 1980' FSL & 660' FEL (NE SE) SECTION 13, 17 |
| | FEE | 43-047-30109 | | | 1909 FNL & 1833' FWL (SE NW) SECTION 19 |
| BRENNAN FEDERAL 9 | U-071745 | 43-047-32477 | <u> A</u> | OIL | 835' FNL & 591' FWL (NWNW) SECTION 19, T7 |
| BRENNAN FEDERAL 10 | ML-3068 | | Α | OIL | 1980' FSL & 1980' FEL (NW SE) SECTION 18, T |
| BRENNAN FEDERAL 11 | | 43-047-32771 | Α | OIL | 660' ENI & 1000' EEL (NW SE) SECTION 18, T |
| BRENNAN FEDERAL 12 | U-071745 | 43-047-32772 | Α | LNI | 660' FNL & 1980' FEL (NW NE) SECTION 19, T7 |
| RENNAN FEDERAL 14 | U-046 | 43-047-32779 | Δ | | 649' FSL & 1886' FWL (SE SW) SECTION 18, T7 |
| TOTAL 14 | U-046 | 43-047-32774 | | OIL | 726 FNL & 2200' FEL (NWNE) SECTION 18 T79 |
| | | | <u> </u> | OIL | 744' FNL & 461' FWL (NW NW) SECTION 18, 17 |



star Exploration and Production Company

Independence Plaza 1050 17th Street, Suite 500 Denver, CO 80265 Tel 303 672 6900 • Fax 303 294 9632

Denver Division

May 28, 2003

Division of Oil, Gas, & Mining 1594 West North Temple, Suite 1210 P. O. Box 145801 Salt Lake City, Utah 84114-5801

Attention: John Baza/Jim Thompson

Gentlemen:

This will serve as notice that through the internal corporate changes described below, activities formerly conducted in the name of either Shenandoah Operating Company, LLC (SOC) and/or Shenandoah Energy, Inc. (SEI) will hereafter be conducted in the name of QEP Uinta Basin, Inc.: i) the Shenandoah entities were purchased in July, 2001 by Questar Market Resources, Inc., which is a mid-level holding company for the non-utility businesses of Questar Corporation, ii) Shenandoah Operating Company, LLC has now been merged into Shenandoah Energy, Inc. (SEI), iii) Shenandoah Energy, Inc. has now been re-named QEP Uinta Basin, Inc. pursuant to a State of Delaware Amended and Restated Certificate of Incorporation, iv) the same employees will continue to be responsible for operations of the former SOC and SEI properties, both in the field and in the office. Accordingly, the change involves only an internal corporate name change and no third party change of operator is involved. Please alter your records to reflect the entity name change. Attached is a spreadsheet listing all wells affected by this change.

Should you have any questions, please call me at 303 - 308-3056.

Yours truly,

Brank Nielsen Division Landman

Karl Thelen

Enclosure

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JUN 0 2 2003

SEI (35) to QEP (N2460) BRENNAN BOTTO NIT

| well name | Sec | T | R | api | Entity | Lease Type | type | stat | |
|----------------|-----|------|------|------------|--------|------------|------|------|----------|
| BRENNAN FED 5 | 18 | 070S | 210E | 4304715420 | 5261 | Federal | WI | Α | |
| BRENNAN FED 11 | 18 | 070S | 210E | 4304732772 | 5261 | Federal | WI | A | <u> </u> |
| BRENNAN FED 1 | 13 | 070S | 200E | 4304715417 | 5261 | Federal | OW | P | - |
| BRENNAN FED 9 | 18 | 070S | 210E | 4304732477 | | Federal | ow | P | |
| BRENNAN FED 14 | 18 | 070S | 210E | 4304732774 | 5261 | Federal | OW | P | |
| BRENNAN FED 12 | 18 | 070S | 210E | 4304732779 | 5261 | Federal | OW | P | |
| BRENNAN FED 10 | 19 | 070S | 210E | 4304732771 | 5261 | State | OW | P | |
| BRENNAN FED 6 | 19 | 070S | 210E | 4304730109 | 5261 | Fee | OW | P | |



United States Department of the Interior

BUREAU OF LAND MANAGEMENT Utah State Office

P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO UT-922

June 9, 2003

QEP Uinta Basin, Inc. 1050 17th Street, Suite 500 Denver, Colorado 80265

Re:

Brennan Bottom Unit Uintah County, Utah

Gentlemen:

On May 30, 2003, we received an indenture dated February 1, 2003, whereby Shenandoah Energy, Inc. changed it name and QEP Uinta Basin, Inc. was designated as Successor Unit Operator for the Brennan Bottom Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective June 9, 2003. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under Brennan Bottom Unit Agreement.

Your nationwide (Eastern States) oil and gas bond No. B000024 will be used to cover all operations within the Brennan Bottom Unit.

It is requested that you notify all interested parties of the name change of unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely.

/s/ Robert A. Henricks

Robert A. Henricks Chief, Branch of Fluid Minerals

Enclosure

hee.

Field Manager - Vernal (w/enclosure)

SITLA

Division of Oil, Gas & Mining Minerals Adjudication Group

File - Brennan Bottom Unit (w/enclosure)

Agr. Sec. Chron Fluid Chron

UT922:TAThompson:tt:6/9/03

OPERATOR CHANGE WORKSHEET

ROUTING 1. GLH 2. CDW

3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

X Operator Name Change

Merger

| The operator of the well(s) listed below has changed, effective | 2/1/2003 |
|---|---------------------------|
| FROM: (Old Operator): | TO: (New Operator): |
| N4235-Shenandoah Energy Inc | N2460-QEP Uinta Basin Inc |
| 11002 E 17500 S | 11002 E 17500 S |
| Vernal, UT 84078-8526 | Vernal, UT 84078-8526 |
| Phone: (435) 781-4341 | Phone: (435) 781-4341 |
| CA No. | Unit: BRENNAN BOTTOM |

| NAME | SEC | TWN | RNG | API NO | ENTITY | LEASE | WELL | WELL | Confi |
|----------------|-----|------|------|------------|--------|---------|------|--------|-------|
| | | | | | NO | TYPE | TYPE | STATUS | |
| BRENNAN FED 1 | 13 | 070S | 200E | 4304715417 | 5261 | Federal | OW | P | - |
| BRENNAN FED 9 | 18 | 070S | 210E | 4304732477 | 5261 | Federal | OW | P | |
| BRENNAN FED 14 | 18 | 070S | 210E | 4304732774 | 5261 | Federal | OW | P | |
| BRENNAN FED 12 | 18 | 070S | 210E | 4304732779 | 5261 | Federal | OW | P | |
| BRENNAN FED 10 | 19 | 070S | 210E | 4304732771 | 5261 | State | OW | P | |
| BRENNAN FED 6 | 19 | 070S | 210E | 4304730109 | 5261 | Fee | OW | P | |
| 4 | | | | | | | | | |
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OPERATOR CHANGES DOCUMENTATION

| Enter da | ate after | each | listed | item | is | complet | ed |
|----------|-----------|------|--------|------|----|---------|----|
|----------|-----------|------|--------|------|----|---------|----|

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on:

6/2/2003

2. (R649-8-10) Sundry or legal documentation was received from the NEW operator on: 6/2/2003

The new company was checked on the Department of Commerce, Division of Corporations Database on: 6/19/2003

4. Is the new operator registered in the State of Utah: YES Business Number: 5292864-0151

If NO, the operator was contacted contacted on:

| 6. (R649-9-2)Waste Management Plan has been received on: | IN PLACE |
|--|---|
| 7. Federal and Indian Lease Wells: The BLM and or the Bl or operator change for all wells listed on Federal or Indian leases on | |
| 8. Federal and Indian Units: The BLM or BIA has approved the successor of unit operator for vision and the successor of unit operator for vision. | wells listed on: <u>7/21/2003</u> |
| 9. Federal and Indian Communization Agreements ("Communication Agreements of the BLM or BIA has approved the operator for all wells listed with | , |
| 10. Underground Injection Control ("UIC") The Dividence of the enhanced/secondary recovery unit/project for the water disposate the control of the secondary recovery unit/project for the water disposate the control of the secondary recovery unit/project for the water disposate the control of the control o | ision has approved UIC Form 5, Transfer of Authority to Inject osal well(s) listed on: |
| DATA ENTRY: | |
| 1. Changes entered in the Oil and Gas Database on: | 8/28/2003 |
| 2. Changes have been entered on the Monthly Operator Change Spro | ead Sheet on: <u>8/28/2003</u> |
| 3. Bond information entered in RBDMS on: | n/a |
| 4. Fee wells attached to bond in RBDMS on: | n/a |
| STATE WELL(S) BOND VERIFICATION: 1. State well(s) covered by Bond Number: | 965-003-032 |
| FEDERAL WELL(S) BOND VERIFICATION: 1. Federal well(s) covered by Bond Number: | ESB000024 |
| INDIAN WELL(S) BOND VERIFICATION: 1. Indian well(s) covered by Bond Number: | 799446 |
| FEE WELL(S) BOND VERIFICATION: 1. (R649-3-1) The NEW operator of any fee well(s) listed covered by E | Bond Number 965-003-033 |
| 2. The FORMER operator has requested a release of liability from their The Division sent response by letter on: | bond on: n/a n/a |
| LEASE INTEREST OWNER NOTIFICATION: | |
| 3. (R649-2-10) The FORMER operator of the fee wells has been contact of their responsibility to notify all interest owners of this change on: | cted and informed by a letter from the Division n/a |
| COMMENTS: | |
| | |
| | |
| | |

JUL 0 7 2003

3104 (932.34)WF Nationwide Bond ESB000024

NOTICE

QEP Uinta Basin, Inc. 1050 17th Street Suite 500 Denver, Colorado 80265 Oil and Gas lease

Name Change Recognized

Acceptable evidence has been filed in this office concerning the name change of Shenandoah Energy Incorporated into QEP Uinta Basin, Incorporated. QEP Uinta Basin, Incorporated is the surviving entity. This name change is recognized effective April 17, 2003.

Eastern States will notify the Minerals Management Service and all applicable Bureau of Land Management offices of the change by a copy of this notice.

If you identify other leases in which the merging entity maintain an interest, please contact this office and we will appropriately document those files with a copy of this notice.

If you have any questions, please contact Bill Forbes at 703-440-1536.

Wilbert B. Forbes

Land Law Examiner

Branch of Use Authorization

Division of Resources Planning,

S/ wilbert B Forbes

Use and Protection

bc: JFO,MMS, ES RF, 930 RF, 932.34 RF, E-932: wbf:07 /07/03:440-1536/ QEP Unita Basin MFO

Michael O. Leavitt Governor Robert L. Morgan Executive Director Lowell P. Braxton Division Director 1594 West North Temple, Suite 1210 PO Box 145801 Salt Lake City, Utah 84114-5801 (801) 538-5340 telephone (801) 359-3940 fax (801) 538-7223 TTY www.nr.utah.gov

September 22, 2003

Jodie Sundquist Shenandoah Energy, Inc. 1050 17th St., Suite 500 Denver, CO 80265

Subject:

(

Notification of Sale or Transfer of Fee Lease Interest

Dear Ms. Sundquist:

The Division has processed your request for an operator change due to the merger of Shenandoah Energy, Inc. to QEP, Uintah Basin, Inc. effective February 1, 2003 for the following fee wells:

| NAME | SEC | TWN | RNG | API NO |
|----------------|-----|-----|-----|--------------|
| Brennan Fed 6 | 19 | 07S | 21E | 43-047-30109 |
| GB 6W-25-8-21 | 25 | 08S | | 43-047-34121 |
| GB 7W-25-8-21 | 25 | 08S | | 43-047-34122 |
| GB 11W-30-8-22 | 30 | 08S | | 43-047-34392 |

Utah Administrative Code Rule R649-2-10 states: "The owner of a lease shall provide notification to any person with an interest in such lease, when all or part of that interest in the lease is sold or transferred".

This letter is written to advise you of your responsibility to notify all individuals with an interest in these leases (royalty interest and working interest) of the changer. Please provide written documentation of this notification to:

Utah Royalty Owners Association PO Box 1292 Roosevelt, Utah 84066

Your assistance in this matter is appreciated.

Sincerely,

Earlene Russell

Engineering Technician

Utah Royalty Owners Association



cc:

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES

FORM 3

| | | | DIVISION | OFO | IL, GAS | S, AND IVI | MING | | | | | | |
|-------------------------------------|---------------------------------|--------------|----------------|------------|---------------|-------------------|------------|---------------------|------------------------------------|----------|--------------|--|--|
| | | APPLIC | CATION FO | R PER | MIT TO | DRILL | | | 5. MINERAL LEASE NO: | 6. S | URFACE: | | |
| | BB** | | | | | | | | MULTIPLE | | FEE | | |
| 1A. TYPE OF WO | ork: DRILI | | REENTER | t | ☑ DE | EPEN | | | 7. IF INDIAN, ALLOTTEE | | IBE NAME | | |
| | | | | ļ | l anna | [7] | | | N/A | | | | |
| B. TYPE OF WEL | LL 🖸 OIL (| GAS | OTHER | | SINGLE ZON | NE 🔽 MULTIP | LE ZONE | | 8. UNIT OF CA AGREEM | ENT NA | ME: | | |
| | | | | | | | | | BRENNAN B | | MS | | |
| 2. NAME OF OPE | | | | | | | | | 9. WELL NAME and NUM | | | | |
| | KPLORATION 8 | PRODUC | STION CO. | | 1 | | | | BRENN | | | | |
| 3. ADDRESS OF | | (EDNIAL O | TATE UT | 710 04 | | IE NUMBER: | 704 420 | 4 | 10. FIELD AND POOL, O BRENNAN B | | | | |
| | 500 SO. CITY NEW WELL (FOOTAGE | | TATE UT | ZIP 84 | 078 | 435- | 781-430° | <u> </u> | 11. QTR/QTR. SECTION | | | | |
| | 835' FNL 594' | | T1 SEC 19 | T7S R2 | 1F | | | | MERIDIAN: | , IOVVIV | ISHIP, KANGE | | |
| | PRODUCING ZONE | | | | | PLE LEASE | R BOTT | OM HOLES | 19 | 7S | 21E | | |
| 14. DISTANCE IN | MILES AND DIREC | TION FROM | VI NEAREST TO | WN OR PO | ST OFFICE: | (x° 10.1 16) | (5 ° 8 11 | Fin.s | 12. COUNTY: | | 13. STATE: | | |
| 23 + \ - MILES \$ | SOUTHEAST OF | VERNAL, | UTAH | | | 9-7 // | J | | UINTAH | | UTAH | | |
| 15. DISTANCE TO | O NEAREST PROP | ERTY OR LE | EASE LINE(FEET | Γ) | 16. NUMBE | R OF ACRES IN | LEASE: | t t | 17. NUMBER OF ACRES ASSI | GNED 1 | O THIS WELL | | |
| 594' + / - | | | | | 180.81 | | | ŀ | 40 | | | | |
| 18. DISTANCE TO | O NEAREST WELL | (DRILLING | COMPLETED C | DR | 19. PROPO | SED DEPTH | | | 20. BOND DESCRIPTION: | | | | |
| | N THIS LEASE (FE | | , | • | 10,226' M | | | | ESB000024 | | | | |
| A FIE (1710):5 | (01014) 127 | 3 DE ST 3 | D ETO \ | | 20 1555 | ·// | (ODI/::::: | 07107 | OO FOTIMATED DUDATION | | | | |
| 21. ELEVATIONS 4678.0' GL | S (SHOW WHETHER | t DF, RT, GI | R,ETC.): | | | | | | 23. ESTIMATED DURATION: 20 DAYS | | | | |
| 4070.U GL | | | | | ASAP | | | , | 20 DA 10 | | | | |
| 24 | | | | | ED CASIN | G AND CEME | NTING | PROGRAM | | | | | |
| SIZE OF HOLE | CASING SIZ | E, GRADE, | AND WEIGHT P | ER FOOT | SE | TTING DEPTH | | CEMENT TYP | PE, QUANTITY, YIELD, AND SI | .URRY | WEIGHT | | |
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| VERIFY THE FOL | LOWING ARE ATT | ACHED IN A | ACCORDANCE V | VITH THE (| UTAH OIL AN | ND GAS CONSE | RATION G | ENERAL RULE | S: | | | | |
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| | or <mark>m</mark> ap prepared e | | | | | ∠ COMPL | ETE DRILL | ING PLAN | | | | | |
| ✓ EVIDNECE OF | DIVISION OF WAT | ER RIGHTS / | approval for (| JSE OF WA | TER | FORM | 5, IF OPER | RATOR IS PERS | ON OR COMPANY OTHER THAN | 1 THE FE | EASE OV | | |
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| SIGNATURE _ | | MAR | <u>~_~</u> | <u>unn</u> | <u>ا</u> | | DATE | 10/13/08 | | | | | |
| (This space for S | State use only) | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| API NUMBER | ASSIGNED: _ | 43-047 | 7-30109 | · | | APF | ROVAL: | | | | | | |
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(11/2001)

Approved by the Utah Division of Oil, Gas and Mining

(See Instruction on Reverse Side)

CONFIDENTIAL
RECEIVED
OCT 1 6 2008

DIV. OF OIL, GAS & MINING

Additional Operator Remarks for Bottom Hole Location and Lease Designation:

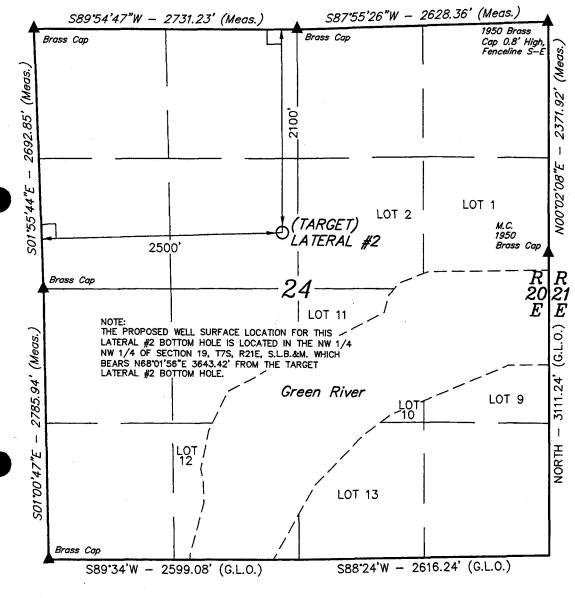
BRENNAN 6 (SURFACE LOCATION) 618743 × 40.29742 LEASE # FEE 44508744 - 104.604 855 835' FNL 594' FWL, LOT 1, Section 19, T7S, R21E SWNE

BOTTOM HOLE LOCATION (LATERAL # 1) 619744x 40. 197515 LEASE # UTU-75760 4454184 -109. 593128 2400' FNL 1300' FEL, LOT 4, SECTION 19, T7S, R21E

BOTTOM HOLE LOCATION (LATERAL # 3) 418060 K 40. 193 298 LEASE # UTSL-065429 4449924 - 109.613 033 1600' FSL 1700' FEL, LOT 10, SECTION 24, T7S, R2¢E NWSE

QUESTAR EXPLR. & PROD. Well location, BRENNAN #6, located as shown T7S, R21E, S.L.B.&M. in the NW 1/4 NW 1/4 of Section 19, T7S, 1950 Brass Cap 0.8' High, Fenceline S-E R21E, S.L.B.&M., Uintah County, Utah. BASIS OF ELEVATION N89°45'54"E - 2647.47' (Meas.) N89°47'52"E - 2475.27' (Meas.) 1950 Brass 1950 Brass BENCH MARK 38EAM LOCATED IN THE SW 1/4 SW 1/4 OF Cap 1.2' High Cap 1.2' High, SECTION 9, T7S, R20E, S.L.B.&M. TAKEN FROM THE PELICAN Fence Corner N-E (Meas. LAKE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES BRENNAN #6 DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID 92, Elev. Ungraded Ground = 4678' ELEVATION IS MARKED AS BEING 4942 FEET. 594' BASIS OF BEARINGS 400, LOT 1 BASIS OF BEARINGS IS A G.P.S. OBSERVATION. 7.80,20.00N 1950 Brass LOT 5 Cap 0.3' High LOT 4 LOT 2 LOT 3 M.C. 1950 Brass Cap 1300' 19 LATERAL G.L.O.) Green River 3963.96 (G.L.O. SCALE CERTIFICATE LOT 9 LOT 12 LOT 8 THIS IS TO CERTIFY THAT THE ABOVE PUR METERORIES LOT 7 FIELD NOTES OF ACTUAL SURVEYS MAN S00°55'I SUPERVISION AND THAT THE SAME BEST OF MY KNOWLEDGE AND BELI NORTH **LOT 11 LOT 13 LOT 10** REVISED: 03-06-08 MHELLININ'S **LOT 13** UINTAH ENGINEERING LAND SURVEYING 85 SOUTH 200 EAST - VERNAL, UTAH 84078 N89'11'E - 5221.26' (G.L.O.) (435) 789-1017 2021 LEGEND: (AUTONOMOUS NAD 83) SCALE DATE SURVEYED: DATE DRAWN: LATITUDE = $40^{\circ}12'06.12''$ (40.201700) 1" = 1000'11-05-07 11-14-07 90° SYMBOL LONGITUDE = 109'36'19.82" (109.605506) PARTY REFERENCES (AUTONOMOUS NAD 27) D.A. T.A. L.K. G.L.O. PLAT PROPOSED WELL HEAD. LATITUDE = $40^{\circ}12'06.25''$ (40.201736) WEATHER LONGITUDE = 109'36'17.33" (109.604814) = SECTION CORNERS LOCATED. COOL QUESTAR EXPLR. & PROD.

T7S, R20E, S.L.B.&M.



BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.

LEGEND:

= 90° SYMBOL

PROPOSED WELL HEAD.

SECTION CORNERS LOCATED.

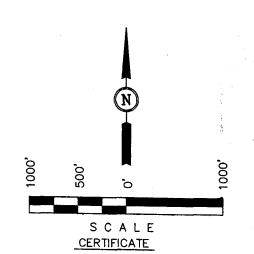
NAD 83 (TARGET BOTTOM HOLE) LATITUDE = $40^{\circ}1^{\circ}52.68^{\circ}$ (40.197967) LONGITUDE = 109'37'03.37" (109.617603' NAD 27 (TARGET BOTTOM HOLE) LATITUDE = 40"11"52.81" (40.198003) LONGITUDE = 109'37'00.87" (109.616908'

QUESTAR EXPLR. & PROD.

Well location, BRENNAN #6 (LATERAL #2), located as shown in the SE 1/4 NW 1/4 of Section 24, T7S, R20E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK 38EAM LOCATED IN THE SW 1/4 SW 1/4 OF SECTION 9, T7S, R20E, S.L.B.&M. TAKEN FROM THE PELICAN LAKE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4942 FEET.



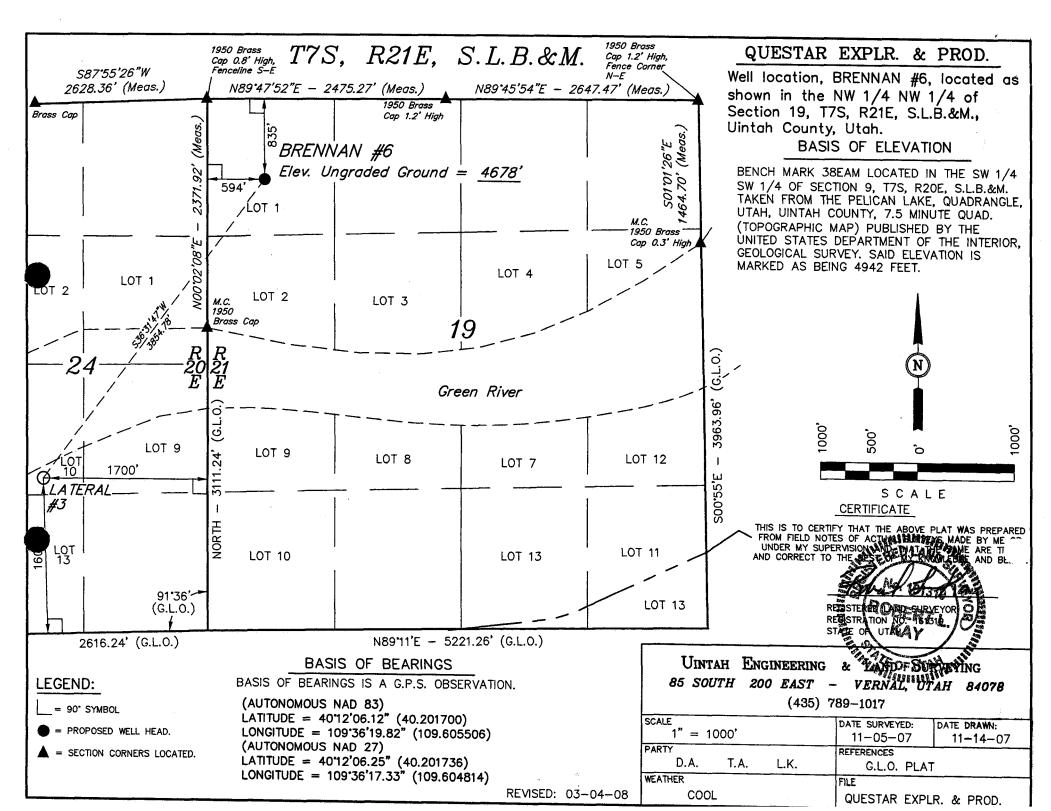
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL BURYLOW ADE BY ME OR UNDER MY SUPERVISION OF THE ARE TRUE AND CORRECT TO THE E

REVISED: 06-19-08

REVISED: 03-04-08

UINTAH ENGINEERING 85 SOUTH 200 EAST VERNAL, UTAH 84078 (435) 789-1017

SCALE DATE SURVEYED: DATE DRAWN: 1" = 1000'11-05-07 11-14-07 PARTY REFERENCES D.A. T.A. L.K. G.L.O. PLAT WEATHER FILE COOL QUESTAR EXPLR. & PROD.



| BOPE REVIEW | Questar Brennan 6 Lateral #1 API 43-047-30109-0100 | | | | | | |
|--|--|--|--|--|--|--|--|
| Well Name | Questar Brennan 6 Lateral #1 API 43-047-30109-0100 | | | | | | |
| | String 1 String 2 String 3 | | | | | | |
| Casing Size (") | 8 5/8 5 1/2 3 1/2 | | | | | | |
| Setting Depth (TVD) | 333 7033 6706 | | | | | | |
| Previous Shoe Setting Depth (TVD) | 40 333 7033 | | | | | | |
| Max Mud Weight (ppg) | 8.33 9.5 9.8 | | | | | | |
| BOPE Proposed (psi) | 0 5000 3000 | | | | | | |
| Casing Internal Yield (psi) | 2950 5320 13970 | | | | | | |
| Operators Max Anticipated Pressure (psi) | 3455 9.9 ppg | | | | | | |

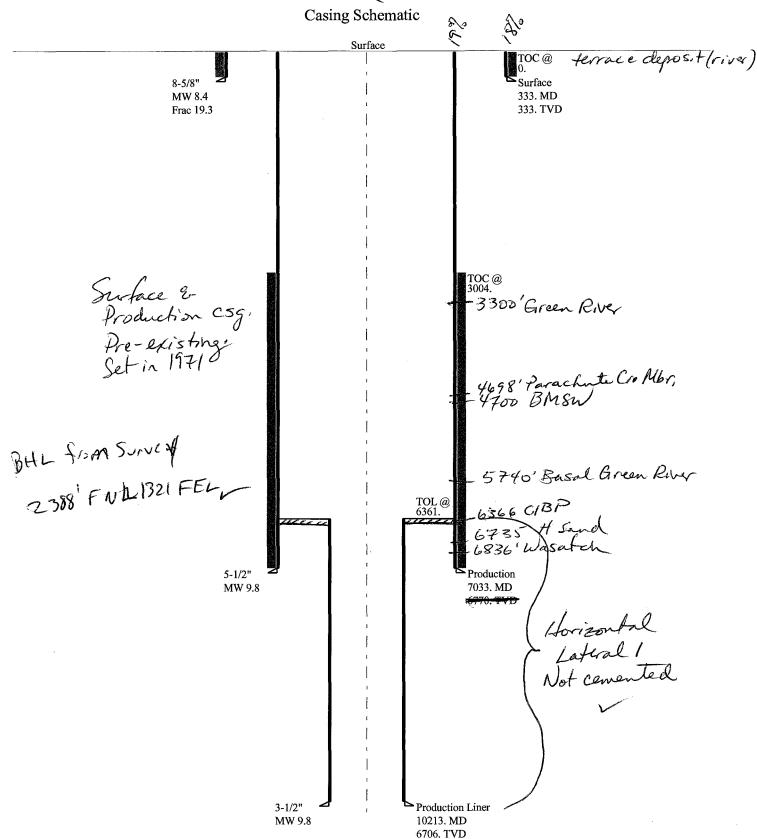
| Calculations | String 1 | 8 5/8 | ** | |
|------------------------------------|---|-------|----------|---|
| Max BHP [psi] | .052*Setting Depth*MW = | 144 | | |
| | | | BOPE A | dequate For Drilling And Setting Casing at Depth? |
| MASP (Gas) [psi] | Max BHP-(0.12*Setting Depth) = | 104 | N | o existing |
| MASP (Gas/Mud) [psi] | Max BHP-(0.22*Setting Depth) = | 71 | Z | 0 |
| - | | | *Can Ful | Il Expected Pressure Be Held At Previous Shoe? |
| Pressure At Previous Shoe | Max BHP22*(Setting Depth - Previous Shoe Depth) = | 80 | N | 0 |
| Required Casing/BOPE Test Pressure | | 333 | psi | |
| *Max Pressure Allowed @ Previ | ous Casing Shoe = | 40 | psi | *Assumes 1psi/ft frac gradient |

| Calculations | String 2 | 5 1/2 | 44 | |
|--|---|-------|--------------|--|
| Max BHP [psi] | .052*Setting Depth*MW = | 3474 | | |
| | | | BOPE Adeq | uate For Drilling And Setting Casing at Depth? |
| MASP (Gas) [psi] | Max BHP-(0.12*Setting Depth) = | 2630 | YES | Existens |
| MASP (Gas/Mud) [psi] | Max BHP-(0.22*Setting Depth) = | 1927 | YES | <u> </u> |
| | | | *Can Full Ex | pected Pressure Be Held At Previous Shoe? |
| Pressure At Previous Shoe | Max BHP22*(Setting Depth - Previous Shoe Depth) = | 2000 | NO | |
| Required Casing/BOPE Test Pressure | | 3000 | psi | |
| *Max Pressure Allowed @ Previous Casing Shoe = | | 333 | psi | *Assumes 1psi/ft frac gradient |

| Calculations | String 3 | 3 1/2 | | | | 71.54 |
|-------------------------------|---|-------|-----------|--------|---|-------|
| Max BHP [psi] | .052*Setting Depth*MW = | 3417 | | | | |
| | | | BOPE Ad | equate | For Drilling And Setting Casing at Depth? | |
| MASP (Gas) [psi] | Max BHP-(0.12*Setting Depth) = | 2613 | YE: | S ~ | | 7 |
| MASP (Gas/Mud) [psi] | Max BHP-(0.22*Setting Depth) = | 1942 | YE: | S | | |
| | | | *Can Full | Expec | ted Pressure Be Held At Previous Shoe? | |
| Pressure At Previous Shoe | Max BHP22*(Setting Depth - Previous Shoe Depth) = | 3489 | YE | s 🗸 | 2 | |
| Required Casing/BOPE Test Pro | essure | 3000 | psi | | | |
| *Max Pressure Allowed @ Previ | ous Casing Shoe = | 5320 | psi | | *Assumes 1psi/ft frac gradient | |

-

43047301090100 Questar Brennan 6 Lat 1



43047301090100 Questar Brennan 6 Lat 1

Operator:

Questar Exploration & Production, CO.

String type:

Surface

Project ID:

43-047-30109-0100

Location:

Uintah County

Design parameters:

Collapse

Mud weight: Design is based on evacuated pipe.

8.400 ppg

Collapse: Design factor

1.125

Environment: Minimum design factors: H2S considered?

Surface temperature: Bottom hole temperature:

75 °F 80 °F

Temperature gradient: Minimum section length:

1.40 °F/100ft

333 ft

No

Burst:

Design factor

8 Round STC:

8 Round LTC:

1.00

1.80 (J)

1.80 (J)

1.60 (J)

Cement top:

Surface

Burst

Max anticipated surface

pressure: Internal gradient:

440 psi 0.120 psi/ft

Calculated BHP

No backup mud specified.

480 psi

Buttress: Premium:

Body yield:

Tension:

1.50 (J) 1.50 (B)

Tension is based on buoyed weight.

291 ft Neutral point:

Non-directional string.

Re subsequent strings:

Next setting depth: Next mud weight:

6,770 ft 9.800 ppg 3,446 psi

Next setting BHP: Fracture mud wt: Fracture depth: Injection pressure:

19.250 ppg 500 ft 500 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Internal Capacity (ft³) |
|------------|---------------------------|-------------------------------|-------------------------------|------------------------|----------------------------|----------------------------|---------------------------|-------------------------------|-------------------------------|
| 1 | 333 | 8.625 | 24.00 | K-55 | ST&C | 333 | 333 | 7.972 | 119.1 |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (Kips) | Tension Strength (Kips) | Tension Design Factor |
| 1 | 145 | 1370 | 9.428 | 480 | 2950 | 6.15 | 7 | 263 | 37.66 J |

Prepared by: Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801-538-5357 FAX: 801-359-3940

Date: December 29,2008 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 333 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

43047301090100 Questar Brennan 6 Lat 1

Operator:

Questar Exploration & Production, CO.

String type:

Production

Project ID:

43-047-30109-0100

Location:

Uintah County

Environment: Minimum design factors:

Collapse

Design parameters:

9.800 ppg Mud weight: Design is based on evacuated pipe.

Collapse: Design factor 1.125 H2S considered?

No 75 °F Surface temperature:

Bottom hole temperature: 170 °F 1.40 °F/100ft Temperature gradient:

Minimum section length: 1,500 ft

Burst:

Design factor

1.00 Cement top: 3,004 ft

Burst

Max anticipated surface

pressure: 1,957 psi Internal gradient: 0.220 psi/ft Calculated BHP 3,446 psi

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.80 (J) **Buttress:** 1.60 (J)

1.50 (J) Premium: 1.50 (B) Body yield:

Directional Info - Build & Hold

Kick-off point 6354 ft Departure at shoe: 441 ft 13.77 °/100ft Maximum dogleg:

91.15° Inclination at shoe:

No backup mud specified.

Tension is based on buoyed weight. Neutral point: 5,764 ft

End True Vert Measured Drift Internal Segment Nominal Run Weight **Finish** Depth Depth Diameter Capacity Length Size Grade Seq (ft³) (in) (lbs/ft) (ft) (ft) (in) (ft) 7033 5.5 17.00 K-55 LT&C 6770 7033 4.767 918 1 **Tension** Tension Tension Run Collapse Collapse Collapse Burst **Burst Burst** Strength Design Strength Design Load Strength Design Load Seq Load **Factor** Factor (psi) (psi) **Factor** (Kips) (Kips) (psi) (psi) 1.425 3446 5320 1.54 98 272 2.78 J 1 3446 4910

Prepared

by:

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801-538-5357 FAX: 801-359-3940

Date: December 29,2008 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 6770 ft, a mud weight of 9.8 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047301090100 Questar Brennan 6 Lat 1

Operator:

Questar Exploration & Production, CO.

String type:

Production Liner

Project ID:

43-047-30109-0100

Location:

Uintah County

Design parameters:

Collapse

Mud weight: Design is based on evacuated pipe.

9.800 ppg

Collapse: Design factor

Environment: Minimum design factors:

1.125

1.60 (J)

1.80 (J)

1.60 (J)

H2S considered?

No 75 °F

Surface temperature: Bottom hole temperature: 169 °F 1.40 °F/100ft Temperature gradient:

Minimum section length: 1,500 ft

Burst:

1.00 Design factor

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

1,939 psi 0.220 psi/ft 3,414 psi

No backup mud specified.

Tension:

API - tubina: 8 Round LTC: Buttress:

Premium: Body yield:

1.50 (J) 1.50 (B)

Tension is based on buoyed weight. Neutral point: 6,701 ft

Liner top: 6.361 ft Directional Info - Build & Hold

Kick-off point 6354 ft Departure at shoe: 3621 ft 13.77 °/100ft Maximum dogleg:

91.15° Inclination at shoe:

Nominal End True Vert Measured Drift Internal Run Segment Weight Grade Finish Depth Depth Diameter Capacity Seq Length Size (ft³) (in) (lbs/ft) (ft) (ft) (in) (ft) 1 3813 3.5 9.20 P-110 Lock-It Eight 6706 10213 2.867 186.2 **Burst Tension Tension Tension** Run Collapse Collapse Collapse Burst Burst Strength Design Load Strength Design Load Strength Design Load Seq **Factor Factor** (psi) (psi) **Factor** (Kips) (Kips) (psi) (psi) 1 3.963 3428 13970 4.08 285 99.99 J 3414 13530

Prepared

Helen Sadik-Macdonald Div of Oil.Gas & Mining

Phone: 801-538-5357 FAX: 801-359-3940

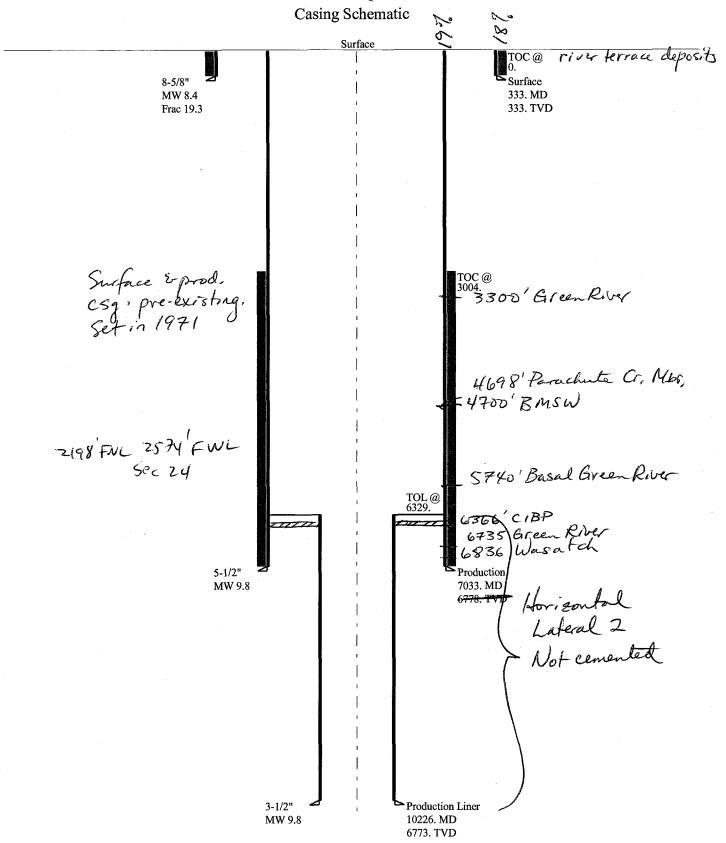
Date: December 29,2008 Salt Lake City, Utah

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 6706 ft, a mud weight of 9.8 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047301090200 Questar Brennan 6 Lat 2



43047301090200 Questar Brennan 6 Lat 2

Operator:

Questar Exploration & Production, CO.

String type:

Production Liner

Project ID:

43-047-30109-0200

Location:

Uintah County

Design parameters:

Collapse

Burst

Mud weight:

Max anticipated surface pressure:

No backup mud specified.

Internal gradient:

Calculated BHP

9.800 ppg

1,958 psi

3,448 psi

0.220 psi/ft

Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor

1.125

Environment:

H2S considered?

No 75 °F

Surface temperature: 170 °F Bottom hole temperature:

1.40 °F/100ft Temperature gradient: Minimum section length: 1,500 ft

Burst:

Tension:

API - tubing:

8 Round LTC:

Design factor

1.00

Liner top:

6,329 ft Directional Info - Build & Hold

Kick-off point Departure at shoe: 6322 ft 3644 ft

Buttress: 1.60 (J) Premium: Body yield:

1.50 (J) 1.50 (B)

1.60 (J)

1.80 (J)

Maximum dogleg:

12.56 °/100ft

Inclination at shoe:

90.1°

Tension is based on buoyed weight.

Neutral point:

6,779 ft

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Internal Capacity (ft³) |
|------------|---------------------------|-------------------------------|-------------------------------|------------------------|----------------------------|----------------------------|---------------------------|-------------------------------|-------------------------------|
| 1 | 3926 | 3.5 | 9.20 | P-110 | Lock-It Eight | 6773 | 10226 | 2.867 | 191.7 |
| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (Kips) | Tension Strength (Kips) | Tension Design Factor |
| 1 | 3448 | 13530 | 3.924 | 3449 | 13970 | 4.05 | 4 | 285 | 76.50 J |

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801-538-5357 FAX: 801-359-3940

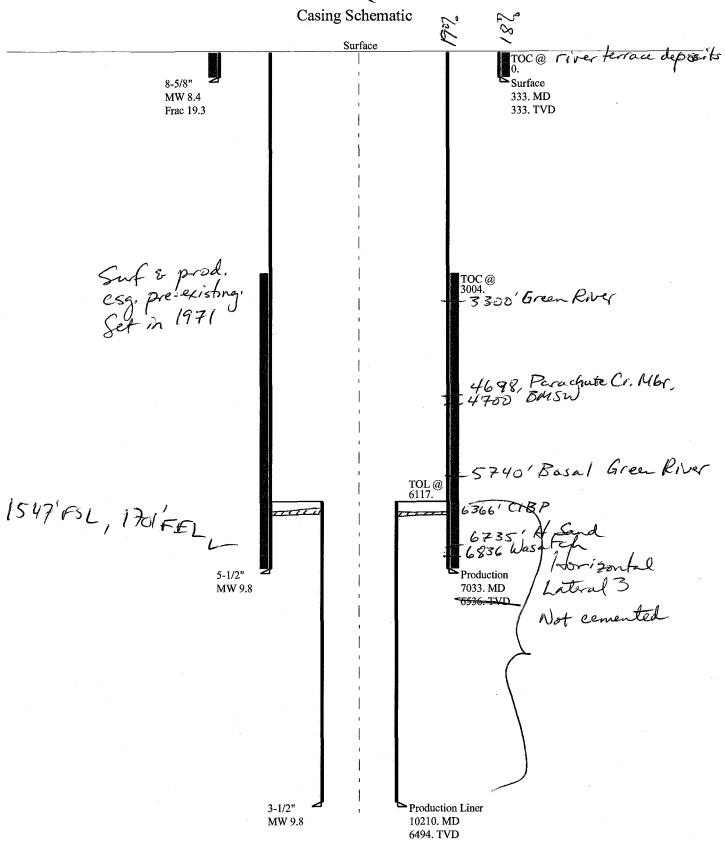
Date: December 29,2008 Salt Lake City, Utah

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 6773 ft, a mud weight of 9.8 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

43047301090300 Questar Brennan 6 Lat 3



43047301090300 Questar Brennan 6 Lat 3

Operator:

Questar Exploration & Production, CO.

String type:

Production Liner

Project ID:

43-047-30109-0300

Location:

Uintah County

Design parameters:

Collapse

Mud weight: Design is based on evacuated pipe.

9.800 ppg

Minimum design factors:

Collapse:

Design factor

Environment:

H2S considered? Surface temperature: No 75 °F

Bottom hole temperature:

166 °F

1.40 °F/100ft Temperature gradient: Minimum section length: 1,500 ft

Burst:

Design factor

1.00

6.483 ft

1.125

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

1,877 psi 0.220 psi/ft 3,306 psi

No backup mud specified.

Tension:

8 Round LTC: Buttress:

Premium: Body yield:

Neutral point:

API - tubing: 1.60 (J) 1.80 (J)

1.60 (J) 1.50 (J) 1.50 (B)

Tension is based on buoyed weight.

6.117 ft Liner top:

Directional Info - Build & Hold Kick-off point 6110 ft

Departure at shoe: 3855 ft Maximum dogleg: 13.35 °/100ft 90.75° Inclination at shoe:

Drift Segment Nominal End True Vert Measured Internal Run Depth Depth Diameter Capacity Length Size Weight Grade **Finish** Seq (ft³) (lbs/ft) (ft) (ft) (in) (ft) (in) 4110 J-55 N/U 10rd 6494 10210 2.943 211 1 3.5 7.70 Run Collapse Collapse Collapse **Burst Burst Burst Tension Tension Tension** Strength Design Load Strength Design Load Strength Design Seq Load **Factor Factor** (Kips) (Kips) **Factor** (psi) (psi) (psi) (psi) 34.56 J 1 3306 5970 1.806 3316 5940 1.79 3 90

Prepared

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801-538-5357 FAX: 801-359-3940

Date: December 29.2008 Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 6494 ft, a mud weight of 9.8 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a



Questar Exploration and Production Company

11002 East 17500 South Vernal, UT 84078 Tel 435 781 4300 • Fax 435 781 4329

December 1, 2008

Diana Mason Division of Oil, Gas & Mining 1594 W. N. Temple STE 1210 Salt Lake City, UT 84114-5801

RE: Surface Agreement for Brennan 6

Dear Diana:

Attached you will find the letter agreement confirming that we have surface approval for the drilling of the above referenced well.

In addition to this, the mailing address for Mary C. Nielson is different from what our records show. The correct address is:

Mary Nielson 238 East 3100 South Bountiful, UT 84010 Phone - 801-298-3763

Please let me know if there is anything else we need to do to get this permit completed.

Sincerely,

Jan Nelson

Regulatory Affairs



Questar Exploration and Production Company

Independence Plaza 1050 17th Street, Suite 500 Denver, CO 80265 Tel 303 672 6900 • Fax 303 294 9632

Rocky Mountain Region

November 12, 2008

Nelden C. Nielson Enterprise c/o Mary Nielson P.O. Box 717 Salt Lake City, UT 84110 Eric Fisher

P.O.BOX 65 Altonah, Ut. 84002 Phone# 307-252-2007

Re:

Brennan #6 Well T7S, R21E, SLM Section 19: Lot 1 (aka NWNW)

Uintah County, Utah

Ladies and Gentlemen:

Questar Exploration and Production Company ("Questar") is the operator of the Brennan #6 Well located on Lot 1, aka the NW/4NW/4, of Section 19 in Township 7 South, Range 21 East, SLM, Uintah County, Utah, ("Said Land"). Nelden C. Nielson Enterprise is the Surface Owner of Said Land and is currently in the process of selling to Eric Fisher (herein collectively referred to as "Owners").

Owners have been advised that Questar intends to re-enter the Brennan #6 for additional operational work. Notwithstanding any agreement to the contrary, Questar and Owners hereby agree on the following terms:

- 1. Owners hereby grant to Questar the right for it, its agents, employees and contractors, and their agents and employees, to enter upon the surface of Said Land for the purpose of conducting oil and gas exploration, drilling, production and marketing activities on Said Land as are reasonably necessary in connection with such activities..
- 2. Questar will move the existing flow line a minimum of 10 feet but a maximum of 20 feet off of the current road and will bury the flow line to make a road crossing 50' from the existing cattle guard.
- 3. Questar will clean out the existing cattle guard and will install a new cattle guard on the west side of Said Lands.
- 4. Questar will connect the existing fence on the north side of Said Lands with an extended fence on the west side of Said Lands.

- 5. Questar will gravel and maintain the access road entering Said Lands through the term of this agreement, at its sole cost and expense.
- 6. Said Lands will be reclaimed back to "Deadman Anchors" on or before April 1, 2009.
- 7. This agreement shall be for a term commencing on the date this agreement is accepted and agreed to by Owners and terminating at the time Operator, its successors and assigns, ceases to conduct operations on Said Land and has removed all of its equipment therefrom.

If the foregoing meets with your approval, please indicate by executing this letter in the space provided below and returning one copy to the attention of Birgit Roesink at the address above.

Should you have any questions please contact either Jan Nelson at 435-781-4331 or Birgit Roesink at 303-672-9637.

Singerely,

J.B. Neese

Executive Vice President

Agreed to and accepted this 24 day of November, 2008.

Arelsen, Trustice

Nelden C. Nielsen Enterprise

Agreed to and accepted this ________

__ day of November, 2008.

Eric Fisher

By: Lew Choks



11002 East 17500 South Vernal, UT 84078 Tel 435 781 4300 • Fax 435 781 4329

October 13, 2008

Dear Diana,

Last Friday (Oct. 10) I mailed out two APD's to have approved, There was a couple of errors on them that Jan and I noticed today. I have made the necessary changes on them and have 2 revised ones enclosed. Please dis-regard the 2 dated Oct. 10.

If you have any questions, Please feel free to call me.

Thank You,

Laura Bills

Associate Regulatory Affairs Analyst Questar Exploration & Production Co.

Naura Bills

Office: 435-781-4301 Cell: 435-790-3666

Fax: 435-781-4395

laura.bills@questar.com

OCT 1 6 2008

Additional Operator Remarks

Questar Exploration & Production Co. proposes to drill a re-entry well to 10,226' to test the Green River. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirement.

See Onshore Order No. 1 attached

Please be advised that Questar Exploration & Production Co. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No. ESB000024. The principal is Questar Exploration & Production Co. via surety as consent as provided for the 43 CFR 3104.2.

PLEASE FIND ATTACHED:

- 1. Re-Entry Procedure
- 2. Pathfinder Drilling Proposal
- 3. 8-point Program
- 4. Proposed Well Bore Diagram
- 5. Legal Plats / Map Prepared by UELS
- 6. Location Layout Refering to Reserve Pit

If additional Technical Information is required, Please contact Steve Hall, Questar Petroleum Engineer at 303-672-6919.

QUESTAR EXPLORATION AND PRODUCTION

Brennan 6

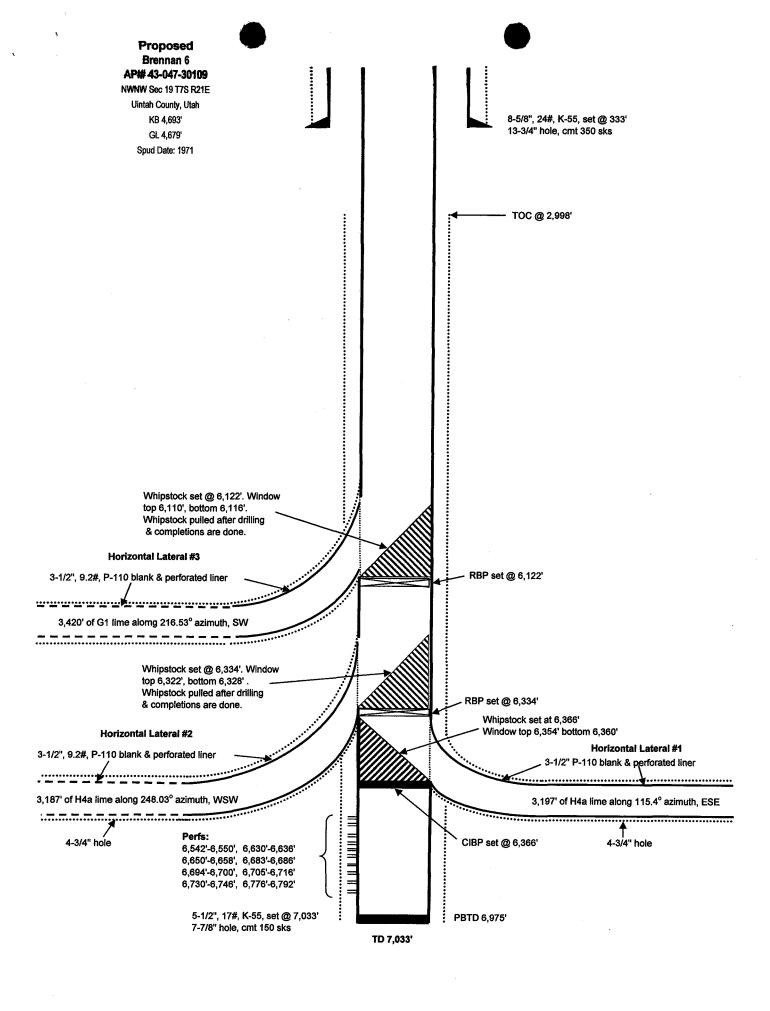
API: 43-047-30109

Summarized Re-Entry Procedure

- 1. Rig down pumping unit, clear location of all unnecessary equipment.
- 2. MIRU pulling unit.
- 3. ND tubing head, NU BOP's (3M).
- 4. Kill well if necessary.
- 5. Pull out of hole with 271 rods $(1 1" \times 2" \text{ plain}, 1 1" \times 4" \text{ plain}, 2 1" \times 6" \text{ plain}, 79 1" w/ metal guides, <math>18 \frac{7}{8}$ " w/ metal guides, $105 \frac{3}{4}$ " plain and 69 $\frac{7}{8}$ " plain) and $2\frac{1}{2}$ " x $1\frac{1}{2}$ " x $12 \times 15 \times 16$ RHAC pump.
- 6. Unseat tubing anchor and POOH with 216 jts $2^{7}/8$ " 6.5# J-55 tubing, TAC, PSN, and MA.
- 7. PU bit and 5 1/2" casing scraper, RIH to 6,400'.
- 8. Roll hole with KCl or NaCl water, TOOH with bit and scraper.
- 9. RU wireline truck and RIH with CIBP.
- 10. Set <u>top</u> of CIBP @ +/- 6,366', 5' above nearest collar @ 6,371', POH.
- 11. ND BOP's
- 12. RD pulling unit, move off location.
- 13. MIRU drilling rig.
- 14. NU rig's 3,000 WP rated BOP.
- 15. RIH with whipstock, orient and set whipstock on top of CIBP set at 6,366' oriented at 115.4° ± azimuth. If it is off a little, it is better to be less (< 115.4°) rather than greater (>115.4°) due to the tendency for the bit to turn right as it comes out of the window. Plus or minus 2-3° is acceptable.
- 16. Shear setting pins and start milling operations, mill window in 5 1/2" casing @ 6,354' top, 6,360' bottom and pilot hole. Work mills in and out of window several times.
- 17. TOOH, PU directional BHA and gyro tool, TIH.
- 18. Gyro steer the well at a 115.4° azimuth with 13.77°/100' build rates to 50 to 100 feet or until the MWD tools have cleared the casing and are providing accurate readings.
- 19. Pull gryo tool and continue to drill with directional equipment to land in the H4a Lime formation at a TVD of +/- 6,770' TVD, +/- 7,016' MD.

- 20. Drill +/- 3,197' of lateral in the H4a Lime with a 1.15° apparent up dip angle.
 - a. Mud system to be a KCl or NaCl weighted water based mud, weights are expected to be in the 8.8 9.8 ppg range.
- 21. Circulate and condition hole, TOOH, LD 3,800' of drill pipe.
 - a. PU 3,197' of 3 1/2" flush slotted liner, 655' of blank liner and liner dropping tool.
 - b. RIH w/ liner and dropping tool, drop liner at 6,361', just outside window.
 - c. TOOH.
- 22. RIH and set **top** of RBP @ +/- 6,334', 8' above nearest collar @ 6,342', POH.
- 23. RIH with whipstock, orient and set whipstock on top of RBP set at 6,334' oriented at 248.03° ± azimuth. If it is off a little, it is better to be less (< 248.03°) rather than greater (>248.03°) due to the tendency for the bit to turn right as it comes out of the window. Plus or minus 2-3° is acceptable.
- 24. Shear setting pins and start milling operations, mill window in 5 1/2" casing @ 6,322' top, 6,328' bottom and pilot hole. Work mills in and out of window several times.
- 25. TOOH, PU directional BHA and gyro tool, TIH.
- 26. Gyro steer the well at a 248.03° azimuth with 12.56°/100' build rates to 50 to 100 feet or until the MWD tools have cleared the casing and are providing accurate readings.
- 27. Pull gryo tool and continue to drill with directional equipment to land in the H4a Lime formation at a TVD of +/- 6,778' TVD, +/- 7,039' MD.
- 28. Drill +/- 3,187' of lateral in the H4a Lime with a 0.1° apparent up dip angle.
 - a. Mud system to be a KCl or NaCl weighted water based mud, weights are expected to be in the 8.8 9.8 ppg range.
- 29. Circulate and condition hole, TOOH, LD 3,800' of drill pipe.
 - a. PU 3,187' of 3 1/2" flush slotted liner, 710' of blank liner and liner dropping tool.
 - b. RIH w/ liner and dropping tool, drop liner at 6,329', just outside window.
 - c. TOOH.
- 30. RIH and set **top** of RBP @ +/- 6,122', 5' above nearest collar @ 6,127', POH.
- 31. RIH with whipstock, orient and set whipstock on top of RBP set at $6,122^{\circ}$ oriented at $216.53^{\circ} \pm \text{azimuth}$. If it is off a little, it is better to be less (< 216.53°) rather than greater (> 216.53°) due to the tendency for the bit to turn right as it comes out of the window. Plus or minus $2-3^{\circ}$ is acceptable.

- 32. Shear setting pins and start milling operations, mill window in 5 1/2" casing @ 6,110' top, 6,116' bottom and pilot hole. Work mills in and out of window several times.
- 33. TOOH, PU directional BHA and gyro tool, TIH.
- 34. Gyro steer the well at a 216.53° azimuth with 13.35°/100' build rates to 50 to 100 feet or until the MWD tools have cleared the casing and are providing accurate readings.
- 35. Pull gryo tool and continue to drill with directional equipment to land in the G1 Lime formation at a TVD of +/- 6,539' TVD, +/- 6,790' MD.
- 36. Drill +/- 3,420' of lateral in the G1 Lime with a 0.75° apparent up dip angle.
 - a. Mud system to be a KCl or NaCl weighted water based mud, weights are expected to be in the 8.8 9.8 ppg range.
- 37. Circulate and condition hole, TOOH, LD 4,000' of drill pipe.
 - a. PU 3,420' of 3 1/2" flush slotted liner, 673' of blank liner and liner dropping tool.
 - b. RIH w/ liner and dropping tool, drop liner at 6,117', just outside window.
 - c. TOOH.
- 38. Run in hole with CBP and set (a) + /-4,500' to isolate the laterals.
- 39. ND BOP's.
- 40. RDMOL.



ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO. Brennan 6 (Re-Entry Horizontal)

DRILLING PROGRAM

ONSHORE OIL & GAS ORDER NO. 1 Approval of Operations on Onshore Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil & Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. Formation Tops

The estimated top of important geologic markers are as follows:

| Lateral # | 1 (ESE | ડ): |
|-----------|--------|-----|
|-----------|--------|-----|

| <u>Formation</u> | Depth, TVD | Depth, MD |
|------------------------|------------|-----------|
| Green River | 3,300' | 2,750' |
| Kick Off Point | 6,354' | 6,354' |
| Green River (H4a Lime) | 6,770' | 7,016' |
| TD | 6,706' | 10,213' |

Lateral #2 (WSW):

| Formation Programme 1 | Depth, TVD | Depth, MD |
|------------------------|------------|-----------|
| Green River | 3,300' | 2,750' |
| Kick Off Point | 6,322' | 6,322' |
| Green River (H4a Lime) | 6,778' | 7,039' |
| TD | 6,722' | 10,226' |

Lateral #3 (SW):

| Formation | Depth, TVD | Depth, MD |
|-----------------------|------------|-----------|
| Green River | 3,300' | 2,750' |
| Kick Off Point | 6,110' | 6,110' |
| Green River (G1 Lime) | 6,539' | 6,790' |
| TD | 6,494' | 10,210' |

2. Anticipated Depths of Oil, Gas, Water, and Other Mineral Bearing Zones

The estimated depths at which the top an bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered as follows:

Lateral #1 (ESE):

| Substance | <u>Formation</u> | Depth, TVD | Depth, MD |
|-----------|------------------------|------------|--------------------|
| Oil/Gas | Green River (H4a Lime) | 6,770' | 7,016' $-10,213$ ' |

ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO.

Brennan 6 (Re-Entry Horizontal)

Lateral #2 (WSW):

Substance Formation I Oil/Gas Green River (H4a Lime)

<u>Depth, TVD</u> 6,778'

Depth, MD 7,039' – 10,226'

Lateral #3 (SW):

Substance

Formation

Depth, TVD

Depth, MD

Oil/Gas

Green River (G1 Lime)

6,539'

6,790' - 10,210'

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right A36125 (which was filed on May 7, 1964) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before 1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

3. Operator's Specification for Pressure Control Equipment

- A. 3,000 psi double gate, 3,000 psi annular (schematic attached)
- B. Function test daily.
- C. All casing strings shall be pressure tested (0.22 psi/ft or 1,500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield of the casing.
- D. Ram type preventers and associated equipment shall be tested to rated working pressure if isolated by a test plug or to 50% of the internal yield pressure of casing, whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil & Gas Order No. 2 for equipment and testing requirements, procedures, etc..., for a 3M system and individual components shall be operable as designed.

4. <u>Casing Vertical Wellbore (Existing)</u>

| Hole Size | Casing Top, Size MD | | Bottom, MD | Weight, lb/ft | Grade | Thread | Condition |
|--------------|------------------------|-----|---------------|------------------|-------|--------|-----------|
| 17 ½ " | 14" | sfc | 40' | Steel | Cond. | None | Used |
| 13 3/4" | 8 5/8" | sfc | 333' | 24.0 | K-55 | STC | New |
| 7 7/8" | 5 ½" | sfc | 7,033' | 17.0 | K-55 | LTC | New |

ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO. Brennan 6 (Re-Entry Horizontal)

K-55

 Casing Strengths:
 Collapse
 Burst
 Tensile (minimum)

 8 5/8"
 24.0 lb.
 K-55
 STC
 1,370 psi
 2,950 psi
 263,000 lb.

The lateral portion of these wellbores will be cased with blank and slotted liners.

LTC

4,910 psi

5,320 psi

272,000 lb.

Lateral #1 (ESE):

5 ½"

17.0 lb.

| Hole Si | ze Casing Size | Top,MD | Bottom, MD | Weight | Grade | Mud Weight |
|---------|-------------------|--------|---------------|--------|-------|---------------|
| 4 3/4" | 3 ½" | 6,361' | 10,213' | 9.2 | P-110 | 8.8-9.8 |

Lateral #2 (WSW):

| Hole Size | Casing Size | Top,MD | Bottom, MD | Weight | Grade | Mud Weight |
|-----------|----------------|--------|---------------|--------|-------|---------------|
| 4 3/4" | | | 10,226' | 9.2 | P-110 | 8.8-9.8 |

Lateral #3 (SW):

| Hole Size | Casing Size | Top,MD | Bottom, MD | Weight | Grade | Mud Weight |
|-----------|----------------|--------|---------------|--------|-------|---------------|
| 4 3/4" | 3 1/2" | 6,117 | 10,210' | 9.2 | P-110 | 8.8-9.8 |

Please refer to the wellbore diagram and re-entry procedure for further details.

MINIMUM DESIGN FACTORS:

COLLAPSE: 1.125 BURST: 1.10

TENSION: 1.80

Area Fracture Gradient: 0.6 psi/foot Maximum anticipated mud weight: 9.8 ppg

Maximum surface treating pressure: 4,000 psi

5. Cementing Program

Casing in the vertical wellbore already exists and is cemented in place requiring no cement.

Lateral #1 (ESE): 3 ½" Slotted & Blank Liner: 6,361' – 10,213' (MD) No cement, dropped in open hole.

Lateral #2 (WSW): 3 ½" Slotted & Blank Liner: 6,329' – 10,226' (MD) No cement, dropped in open hole.

ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO.

Brennan 6 (Re-Entry Horizontal)

Lateral #3 (SW): 3 ½" Slotted & Blank Liner: 6,117' – 10,210' (MD) No cement, dropped in open hole.

6. Auxilliary Equipment

- A. Kelly Cock Yes
- B. Float at the bit No
- C. Monitoring equipment on the mud system visually and/or PVT or Flow Show
- D. Fully opening safety valve on the rig floor Yes
- E. Rotating Head Yes
- F. All operations and equipment for air/gas drilling shall meet specifications in Onshore Order #2, Section III Requirements, subsection E. Special Drilling Operations and Onshore Order #1. No air drilling is planned.

Drilling of the laterals will be done with fresh water KCl or NaCl based mud systems consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash, polymers, and KCl or NaCl. No chromates will be used. Maximum anticipated mud weight is 9.8 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow show will be used upon each exit of existing casing to TD.

Gas detector will be used upon each exit of existing casing to TD.

7. Testing, Logging, and Coring Program

- A. Cores None Anticipated
- B. DST None Anticipated
- C. Logging:
 - i. Mud logging from 5,000' to TD
 - ii. MWD-GR will be utilized during drilling operations to aid in landing the curve and maintaining the laterals within the desired zone.
- D. Formation and completion interval: H4a and G1 Lime intervals, final determination of completion will be made by analysis of mud logging data. Stimulation: stimulation will be designed for the particular area of interest encountered.

ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO.

Brennan 6 (Re-Entry Horizontal)

Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards

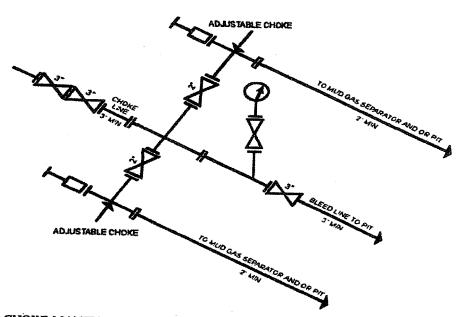
No abnormal temperatures or pressures are anticipated. No H₂S has been encountered or is known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom-hole pressure equals approximately 3,455 psi. Maximum anticipated bottom hole temperature is approximately 150°F.

ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO. Brennan 6 (Re-Entry Horizontal) 3M BOP STACK

Flowline Rotating Head Spacer Spool 3M Annular 3M Double Ram 2" Kill Line 3" Choke Line 2" 3M 2" 3M Check Manual 3" 3M 3" 3M 3M x 3M Multi-Bowl Head 9 5/8" 3M Casing Head

3M CHOKE MANIFOLD

ONSHORE OIL & GAS ORDER NO. 1 QUESTAR EXPLORATION AND PRODUCTION, CO. Brennan 6 (Re-Entry Horizontal)



3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY [54 FR 39528, Sept. 27, 1989]



Questar Exploration & Production

Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6 Wellbore Lat#1

Plan: Plan #1

Pathfinder Planning Report

18 March, 2008





Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company: Project:

Questar Exploration & Production Uintah Co., UT

Site:

Sec.19-T7S-R21E Brennan Federal #6

Well: Wellbore:

Wellbore Lat#1

Design:

Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

Minimum Curvature

Project

Uintah Co., UT

Map System:

US State Plane 1983

Geo Datum: Map Zone:

North American Datum 1983

Utah Central Zone

System Datum:

Mean Sea Level

Site

Sec.19-T7S-R21E

Site Position:

Lat/Long

Northing: Easting:

7,247,798.66 ft 2,169,536.68 ft

Latitude:

Longitude:

40° 12' 6.120 N

From: Position Uncertainty:

Slot Radius:

Grid Convergence:

109° 36' 19.820 W

1.21 °

Well

Brennan Federal #6

Well Position

+N/-S +E/-W

Plan #1

0.0 ft 0.0 ft

0.0 ft

Northing: Easting:

7,247,798.66 ft 2,169,536.68 ft

11.57

Latitude: Longitude: 40° 12' 6.120 N

Position Uncertainty

0.0 ft

Wellhead Elevation:

2/13/2008

ft

Ground Level:

109° 36' 19.820 W 4,679.0 ft

52,819

Wellbore

Wellbore Lat#1

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF200510

Design

Audit Notes:

Version:

Phase:

PROTOTYPE

Tie On Depth:

66.11

Depth From (TVD)

+N/-S

+E/-W

0.0

Vertical Section:

(ft) 0.0 (ft) 0.0

(ft) 0.0 Direction (°) 115.40

Plan Sections

| Measured | | | Vertical | | | Dogleg | Build | Turn | | |
|----------|-------------|---------|----------|----------|---------|-----------|-----------|-----------|--------|---------------------|
| Depth | Inclination | Azimuth | Depth | +N/-S | +E/-W | Rate | Rate | Rate | TFO | |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | (°/100ft) | (°) | Target |
| 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,354.0 | 0.00 | 0.00 | 6,354.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,015.9 | 91.15 | 115.40 | 6,770.0 | -182.1 | 383.4 | 13.77 | 13.77 | 0.00 | 115.40 | PBHL Brennan #6 Lat |
| 10,212.9 | 91,15 | 115.40 | 6,705.8 | -1,553.0 | 3,270.7 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL Brennan #6 Lat |



Pathfinder Energy Services

Planning Report



Database: Company: EDM 2003.16 Single User Db

Project:

Design:

Questar Exploration & Production Uintah Co., UT

Site: Sec.19-T7S-R21E Well: Brennan Federal #6 Wellbore:

Wellbore Lat#1

Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

| l Survey | | | | | | | | | |
|---------------------------|--------------------|------------------|---------------------------|------------------|--------------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| | | () | (**) | (10) | (14) | (, | (710010) | (/ 10010) | (110014) |
| KOP / Start | | | | | | | | | |
| 6,354.0 | 0.00 | 0.00 | 6,354.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| Casing Colla | ar 6371' MD | | | | | | | | |
| 6,371.0 | 2.34 | 115.40 | 6,371.0 | -0.1 | 0.3 | 0.3 | 13.77 | 13.77 | 0.00 |
| 6,375.0 | 2.89 | 115.40 | 6,375.0 | -0.2 | 0.5 | 0.5 | 13.77 | 13.77 | 0.00 |
| 6,400.0 | 6.33 | 115.40 | 6,399.9 | -1.1 | 2.3 | 2.5 | 13.77 | 13.77 | 0.00 |
| 6,425.0 | 9.78 | 115.40 | 6,424.7 | -2.6 | 5.5 | 6.0 | 13.77 | 13.77 | 0.00 |
| 6,450.0 | 13.22 | 115.40 | 6,449.2 | -4.7 | 10.0 | 11.0 | 13.77 | 13.77 | 0.00 |
| 6,475.0 | 16.66 | 115.40 | 6,473.3 | -7.5 | 15.8 | 17.5 | 13.77 | 13.77 | 0.00 |
| 6,500.0 | 20.10 | 115.40 | 6,497.0 | -10.9 | 22.9 | 25.4 | 13.77 | 13.77 | 0.00 |
| 6,525.0 | 23.55 | 115.40 | 6,520.2 | -14.9 | 31.3 | 34.6 | 13.77 | 13.77 | 0.00 |
| G1 Lime Top | Porosity | | - | | | | | | |
| 6,549.2 | 26.88 | 115.40 | 6,542.1 | -19.3 | 40.6 | 44.9 | 13.77 | 13.77 | 0.00 |
| · | | | | | | | | | |
| 6,550.0 | 26.99 | 115.40 | 6,542.8 | -19.4 | 40.9 | 45.3 | 13.77 | 13.77 | 0.00 |
| | ttom of Porosity | | _ | | | | | | |
| 6,553.6 | 27.49 | 115.40 | 6,546.1 | -20.1 | 42.4 | 47.0 | 13.77 | 13.77 | 0.00 |
| 6,575.0 | 30.43 | 115.40 | 6,564.8 | -24.6 | 51.8 | 57.3 | 13.77 | 13.77 | 0.00 |
| 6,600.0 | 33.87 | 115.40 | 6,585.9 | -30.3 | 63.8 | 70.6 | 13.77 | 13.77 | 0.00 |
| 6,625.0 | 37.32 | 115.40 | 6,606.2 | -36.5 | 76.9 | 85.2 | 13.77 | 13.77 | 0.00 |
| 6,650.0 | 40.76 | 115.40 | 6,625.7 | -43.3 | 91.2 | 100.9 | 13.77 | 13.77 | 0.00 |
| 6,675.0 | 44.20 | 115.40 | 6,644.1 | -50.5 | 106.4 | 117.8 | 13.77 | 13.77 | 0.00 |
| 6,700.0 | 47.64 | 115.40 | 6,661.5 | -58,2 | 122.6 | 135.8 | 13.77 | 13.77 | 0.00 |
| 6,725.0 | 51.09 | 115.40 | 6,677.8 | -66.4 | 139.8 | 154.7 | 13.77 | 13.77 | 0.00 |
| 6,750.0 | 54.53 | 115.40 | 6,692.9 | -74.9 | 157.8 | 174.6 | 13.77 | 13.77 | 0.00 |
| 6,775.0 | 57.97 | 115.40 | 6,706.8 | -83.8 | 176.5 | 195.4 | 13.77 | 13.77 | 0.00 |
| 6,800.0 | 61.41 | 115.40 | 6,719.4 | -93.1 | 196.0 | 217.0 | 13.77 | 13.77 | 0.00 |
| 6,825.0 | 64.86 | 115.40 | 6,730.7 | -102.6 | 216.2 | 239.3 | 13.77 | 13.77 | 0.00 |
| 6,850.0 | 68.30 | 115.40 | 6,740.6 | -112.5 | 236.9 | 262.2 | 13.77 | 13.77 | 0.00 |
| 6,875.0 | 71.74 | 115.40 | 6,749.1 | -122.6 | 258.1 | 285.7 | 13.77 | 13.77 | 0.00 |
| • | | | | | | | | | |
| 6,900.0 | 75.18 | 115.40 | 6,756.3 | -132.8 | 279.8 | 309.7 | 13.77 | 13.77 | 0.00 |
| 6,925.0 | 78.63 | 115.40 | 6,761.9 | -143.3 | 301.7 | 334.0 | 13.77 | 13.77 | 0.00 |
| 6,950.0 | 82.07 | 115.40 | 6,766.1 | -153.9 | 324.0 | 358.7 | 13.77 | 13.77 | 0.00 |
| H4a Lime To | | 445.40 | 0.700.4 | 400.4 | 0.40.0 | 270.0 | 40.77 | 40.77 | |
| 6,970.1 | 84.83 | 115.40 | 6,768.4 | -162.4 | 342.0 | 378.6 | 13.77 | 13.77 | 0.00 |
| 6,975.0 | 85.51 | 115.40 | 6,768.8 | -164.5 | 346.5 | 383.5 | 13.77 | 13.77 | 0.00 |
| 7,000.0 | 88.95 | 115.40 | 6,770.0 | -175.2 | 369.0 | 408.5 | 13.77 | 13.77 | 0.00 |
| Start 3196.9 | hold at 7015.9 M | I D | | | | | | | |
| 7,015.9 | 91.15 | 115.40 | 6,770.0 | -182.1 | 383.4 | 424.4 | 13.77 | 13.77 | 0.00 |
| 7,100.0 | 91.15 | 115.40 | 6,768.3 | -218.1 | 459.3 | 508.5 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 91.15 | 115.40 | 6,766.3 | -261.0 | 549.6 | 608.5 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 91.15 | 115.40 | 6,764.3 | -303.9 | 640.0 | 708.4 | 0.00 | 0.00 | 0.00 |
| 7.400.0 | 91.15 | 115.40 | 6.762.3 | -346.8 | 730.3 | 808.4 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 91.15 | 115.40 | 6,760.3 | -389.6 | 820.6 | 908.4 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 91.15 | 115.40 | 6,758.3 | -432.5 | 910.9 | 1,008.4 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 91.15 | 115.40 | 6,756.3 | -475.4 | 1,001.2 | 1,108.4 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 91.15 | 115.40 | 6,754.3 | -518.3 | 1,091.5 | 1,208.3 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | | | | | | | | | |
| 7,900.0 8,000.0 | 91.15 | 115.40 115.40 | 6,752.3 6,750.3 | -561.2 | 1,181.8 | 1,308.3 1,408.3 | 0.00 0.00 | 0.00 0.00 | 0.00 0.00 |
| 8,000.0 8,100.0 | 91.15 91.15 | 115.40 115.40 | 6,750.3 6,748.3 | -604.1 -647.0 | 1,272.2 1,362.5 | 1,408.3 1,508.3 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 91.15 | 115.40 | 6,746.2 | -647.0 -689.8 | 1,362.5 | 1,608.3 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 91.15 | 115.40 | 6,746.2 6,744.2 | -732.7 | 1,452.6 | 1,708.2 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| 8,400.0 | 91.15 | 115.40 | 6,742.2 | -775.6 | 1,633.4 | 1,808.2 | 0.00 | 0.00 | 0.00 |

QUESTAR

Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company:

Questar Exploration & Production Uintah Co., UT

Project: Site: Well:

Wellbore:

Design:

Sec.19-T7S-R21E Brennan Federal #6

Wellbore Lat#1 Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

| d Survey | | | | | | | | | |
|---------------------------|--------------------|------------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,600.0 | 91.15 | 115.40 | 6,738.2 | -861.4 | 1,814.1 | 2,008.2 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 91.15 | 115.40 | 6,736.2 | -904.3 | 1,904.4 | 2,108.2 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 91.15 | 115.40 | 6,734.2 | -947.1 | 1,994.7 | 2,208.1 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 91.15 | 115.40 | 6,732.2 | -990.0 | 2,085.0 | 2,308.1 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 91.15 | 115.40 | 6,730.2 | -1,032.9 | 2,175.3 | 2,408.1 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 91.15 | 115.40 | 6,728.2 | -1,075.8 | 2,265.6 | 2,508.1 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 91.15 | 115.40 | 6,726.2 | -1,118.7 | 2,355.9 | 2,608.1 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 91.15 | 115.40 | 6,724.2 | -1,161.6 | 2,446.3 | 2,708.0 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 91.15 | 115.40 | 6,722.2 | -1,204.5 | 2,536.6 | 2,808.0 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 91.15 | 115.40 | 6,720.2 | -1,247.3 | 2,626.9 | 2,908.0 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 91.15 | 115.40 | 6,718.1 | -1,290.2 | 2,717.2 | 3,008.0 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 91.15 | 115.40 | 6,716.1 | -1,333.1 | 2,807.5 | 3,108.0 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 91.15 | 115.40 | 6,714.1 | -1,376.0 | 2,897.8 | 3,207.9 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 91.15 | 115.40 | 6,712.1 | -1,418.9 | 2,988.2 | 3,307.9 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 91.15 | 115.40 | 6,710.1 | -1,461.8 | 3,078.5 | 3,407.9 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 91.15 | 115.40 | 6,708.1 | -1,504.7 | 3,168.8 | 3,507.9 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 91.15 | 115.40 | 6,706.1 | -1,547.5 | 3,259.1 | 3,607.9 | 0.00 | 0.00 | 0.00 |
| TD at 10212. | 9 - PBHL Brenna | an #6 Lat #1 - P | BHL Brennan # | 6 Lat #1 | | | | | |
| 10.212.9 | 91.15 | 115.40 | 6,705.8 | -1,553.0 | 3,270.7 | 3,620.7 | 0.00 | 0.00 | 0.00 |

| Targets | | | | | | | | | |
|---|------------------|-----------------|-------------|---------------|---------------|------------------|-----------------|------------------|-------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| PBHL Brennan #6 Lat # ⁻ - plan hits target - Point | 0.00 | 0.00 | 6,705.8 | -1,553.0 | 3,270.7 | 7,246,315.23 | 2,172,839.56 | 40° 11′ 50.769 N | 109° 35' 37.667 W |

| Casing Points | | | | | |
|---------------|---------------------------|---------------------------|------------------------|---------------------------|-------------------------|
| | Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
| | 6,342.0 | 6,342.0 | Casing Collar 6342' MD | 5-1/2 | 6 |
| | 6,371.0 | 6,371.0 | Casing Collar 6371' MD | 5-1/2 | 6 |
| | | | | | |

| Measured Depth | Vertical Depth | | | Dip | Dip Direction |
|-------------------|-------------------|----------------------------|-----------|-------|------------------|
| (ft) | (ft) | Name | Lithology | (°) | (°) |
| 3,300.0 | 3,300.0 | Green River | | -1.15 | 114.79 |
| 6,549.2 | 6,543.0 | G1 Lime Top Porosity | | -1.15 | 114.79 |
| 6,553.6 | 6,547.0 | G1 Lime Bottom of Porosity | | -1.15 | 114.79 |
| 6,970.1 | 6,776.0 | H4a Lime Top Porosity | | -1.15 | 114.79 |
| | 6,782.0 | H4a Lime Bottom Porosity | | -1.15 | 114.79 |



Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company: Project: Questar Exploration & Production Uintah Co., UT

Site: Well: Sec.19-T7S-R21E Brennan Federal #6 Wellbore Lat#1

Wellbore: Design:

Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

| Plan Annotations | | | | | |
|------------------|----------|----------|------------|---------|--------------------------------|
| M | leasured | Vertical | Local Coor | dinates | |
| | Depth | Depth | +N/-S | +E/-W | |
| | (ft) | (ft) | (ft) | (ft) | Comment |
| | 6,354.0 | 6,354.0 | 0.0 | 0.0 | KOP / Start Build 13.77°. |
| | 7,015.9 | 6,770.0 | -182.1 | 383.4 | Start 3196.9 hold at 7015.9 MD |
| | 10,212.9 | 6,705.8 | -1,553.0 | 3,270.7 | TD at 10212.9 |

QUESTAR

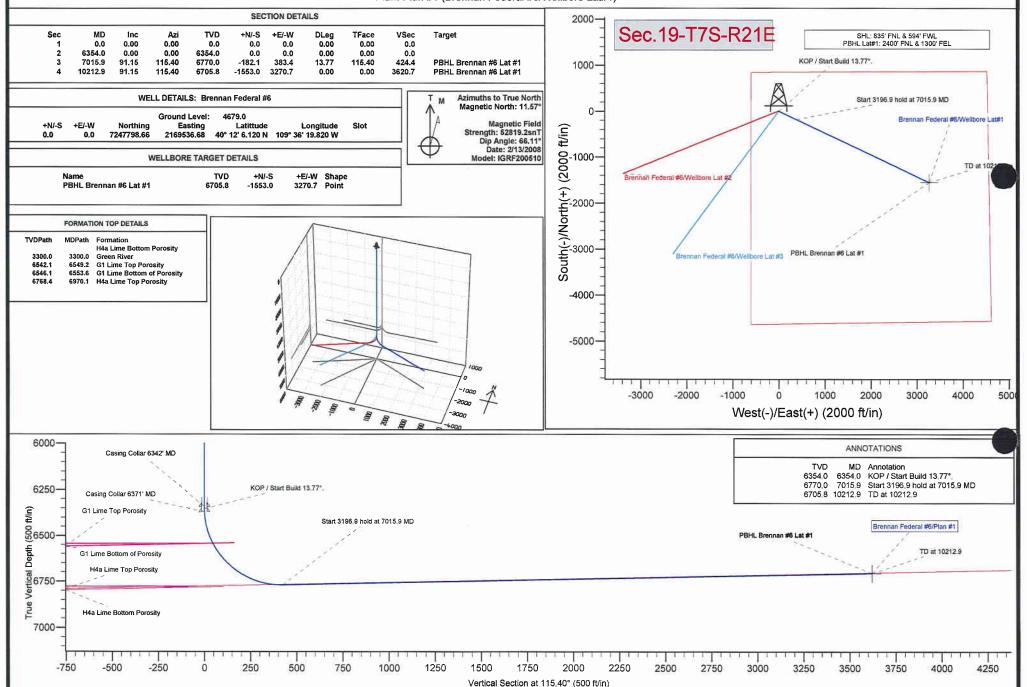
Company: Questar Exploration & Production

Field: Uintah Co., UT Location: Sec.19-T7S-R21E Well: Brennan Federal #6

Wellbore Lat#1

Plan: Plan #1 (Brennan Federal #6/Wellbore Lat#1)







Questar Exploration & Production

Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6 Wellbore Lat #2

Plan: Plan #1

Pathfinder Planning Report

18 March, 2008



UESTAR

Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company: Project:

Questar Exploration & Production Uintah Co., UT

Site:

Sec.19-T7S-R21E Brennan Federal #6

Well: Wellbore:

Wellbore Lat #2

Plan #1 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

Minimum Curvature

Project

Uintah Co., UT

Map System:

US State Plane 1983

Geo Datum: Map Zone:

North American Datum 1983

Utah Central Zone

System Datum:

Mean Sea Level

Site

Well

Sec.19-T7S-R21E

Site Position:

From:

Lat/Long

0.0 ft

Northing: Easting: Slot Radius: 7,247,798.66 ft 2,169,536.68 ft

Latitude:

Longitude:

Grid Convergence:

66.11

40° 12' 6.120 N

109° 36' 19.820 W 1.21 °

Position Uncertainty:

Brennan Federal #6

Well Position

+N/-S +E/-W

0.0 ft 0.0 ft Northing: Easting:

7,247,798.66 ft 2,169,536.68 ft

11.57

Latitude: Longitude:

40° 12' 6.120 N 109° 36' 19.820 W

Position Uncertainty

0.0 ft

Wellhead Elevation:

2/13/2008

ft

Ground Level:

4,679.0 ft

52,819

Wellbore

Wellbore Lat #2

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF200510 Plan #1

Audit Notes:

Design

Version:

Phase:

PROTOTYPE

Tie On Depth:

6,321.8

Depth From (TVD)

+N/-S

+E/-W

Direction

Vertical Section:

(ft) 0.0 (ft) 0.0

(ft) 0.0

(°) 248.03

| Plan Sections | | | | | | | | | | |
|-------------------|-------------|---------|-------------------|----------|----------|----------------|---------------|--------------|--------|---------------------|
| Measured Depth | inclination | Azimuth | Vertical Depth | +N/-S | +E/-W | Dogleg Rate | Build Rate | Turn Rate | TFO | |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | (°/100ft) | (°) | Target |
| 6,321.8 | 0.00 | 0.00 | 6,321.8 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,039.2 | 90.10 | 248.03 | 6,778.0 | -171.0 | -423.8 | 12.56 | 12.56 | 0.00 | 248.03 | PBHL Brennan #6 Lat |
| 10,225.6 | 90.10 | 248.03 | 6,772.4 | -1,363.1 | -3,378.8 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL Brennan #6 Lat |

QUESTAR

Pathfinder Energy Services

Planning Report



Database: Company: EDM 2003,16 Single User Db

Project: Site:

Wellbore:

Design:

Well:

Questar Exploration & Production

Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6

Brennan Federa Wellbore Lat #2 Plan #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

| Measured | | | Vertical | | | Vertical | Dogleg | Build | Turn |
|-------------------------|-------------------------------|---|--------------------|------------------|--------------------|----------------|---------------|---------------|--------------|
| Depth | Inclination | Azimuth | Depth | +N/-S | +E/-W | Section | Rate | Rate | Rate |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | (°/100ft) |
| | | • | | | , | | | | |
| 6,321.8 | 3 uiid 12.56°. 0.00 | 0.00 | 6,321.8 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| | | | • | | | | | | |
| 6,325.0 Casing Colla | 0.40 | 248.03 | 6,325.0 | 0.0 | 0.0 | 0.0 | 12.56 | 12.56 | 0.00 |
| 6,342.0 | 2.54 | 248.03 | 6,342.0 | -0.2 | -0.4 | 0.4 | 12.56 | 12.56 | 0.00 |
| 6,342.0 | 2.54 3.54 | 248.03 248.03 | 6,350.0 | -0.2 -0.3 | -0.4 -0.8 | 0.4 | 12.56 | 12.56 | 0.00 |
| 6,375.0 | 6.68 | 248.03 | 6,374.9 | -0.3 -1.2 | -2.9 | 3.1 | 12.56 | 12.56 | 0.00 |
| 6,400.0 | 9.82 | 248.03 | 6,399.6 | -1.2 -2.5 | -2.9 -6.2 | 6.7 | 12.56 | 12.56 | 0.00 |
| 0,400.0 | 9.02 | 240.03 | 0,399.0 | | -0.2 | 0.7 | 12.30 | 12.30 | 0.00 |
| 6,425.0 | 12.96 | 248.03 | 6,424.1 | -4.3 | -10.8 | 11.6 | 12.56 | 12.56 | 0.00 |
| 6,450.0 | 16.10 | 248.03 | 6,448.3 | -6.7 | -16.6 | 17.9 | 12.56 | 12.56 | 0.00 |
| 6,475.0 | 19.24 | 248.03 | 6,472.1 | -9.5 | -23.6 | 25.5 | 12.56 | 12.56 | 0.00 |
| 6,500.0 | 22.38 | 248.03 | 6,495.5 | -12.9 | -31.9 | 34.4 | 12.56 | 12.56 | 0.00 |
| 6,525.0 | 25.52 | 248.03 | 6,518.3 | -16.7 | -41.3 | 44.5 | 12.56 | 12.56 | 0.00 |
| 6,550.0 | 28.66 | 248.03 | 6,540.6 | -20.9 | -51.8 | 55.9 | 12.56 | 12.56 | 0.00 |
| G1 Lime Top | | | | | | | | | |
| 6,552.6 | 28.99 | 248.03 | 6,542.9 | -21.4 | -53.0 | 57.2 | 12.56 | 12.56 | 0.00 |
| | tom Porosity | | | | | | | | |
| 6,557.2 | 29.57 | 248.03 | 6,546.9 | -22.2 | -55.1 | 59.4 | 12.56 | 12.56 | 0.00 |
| 6,575.0 | 31.80 | 248.03 | 6,562.2 | -25.6 | -63.5 | 68.5 | 12.56 | 12.56 | 0.00 |
| 6,600.0 | 34.94 | 248.03 | 6,583.1 | -30.8 | -76.3 | 82.2 | 12.56 | 12.56 | 0.00 |
| 6,625.0 | 38.08 | 248.03 | 6,603.2 | -36.3 | -90.1 | 97.1 | 12.56 | 12.56 | 0.00 |
| 6,650.0 | 41.22 | 248.03 | 6,622.4 | -42.3 | -104.8 | 113.1 | 12.56 | 12.56 | 0.00 |
| 6,675.0 | 44.36 | 248.03 | 6,640.8 | -48.7 | -120.6 | 130.0 | 12.56 | 12.56 | 0.00 |
| 6,700.0 | 47.50 | 248.03 | 6,658.1 | -55.4 | -137.3 | 148.0 | 12.56 | 12.56 | 0.00 |
| 6,725.0 | 50.64 | 248.03 | 6,674.5 | -62.4 | -154.8 | 166.9 | 12.56 | 12.56 | 0.00 |
| 6,750.0 | 53.78 | 248.03 | 6,689.8 | -69.8 | -173.1 | 186.6 | 12.56 | 12.56 | 0.00 |
| 6,775.0 | 56.92 | 248.03 | 6,704.0 | -77.5 | -192.2 | 207.2 | 12.56 | 12.56 | 0.00 |
| 6,800.0 | 60.06 | 248.03 | 6,717.1 | -85.5 | -211.9 | 228.5 | 12.56 | 12.56 | 0.00 |
| 6,825.0 | 63.20 | 248.03 | 6,729.0 | -93.7 | -232.3 | 250.5 | 12.56 | 12.56 | 0.00 |
| 6,850.0 | 66.34 | 248.03 | 6,739.6 | -102.2 | -253.3 | 273.1 | 12.56 | 12.56 | 0.00 |
| 6,875.0 | 69.48 | 248.03 | 6,749.0 | -110.8 | -274.8 | 296.3 | 12.56 | 12.56 | 0.00 |
| 6,900.0 | 72.62 | 248.03 | 6,757.2 | -119.7 | -296.7 | 319.9 | 12.56 | 12.56 | 0.00 |
| 6,925.0 | 75.76 | 248.03 | 6,764.0 | -128.7 | -319.0 | 344.0 | 12.56 | 12.56 | 0.00 |
| 6,950.0 | 78.90 | 248.03 | 6,769.4 | -137.8 | -341.6 | 368.4 | 12.56 | 12.56 | 0.00 |
| 6,975.0 | 82.04 | 248.03 | 6,773.6 | -147.0 | -364.5 | 393.0 | 12.56 | 12.56 | 0.00 |
| H4a Lime To | n Paraeite | | | | | | | | |
| 6,988.8 | 83.78 | 248.03 | 6,775.3 | -152.2 | -377.2 | 406.7 | 12.56 | 12.56 | 0.00 |
| 7,000.0 | 85.18 | 248.03 | 6,776.4 | -156.3 | -377.2 -387.5 | 417.9 | 12.56 | 12.56 | 0.00 |
| 7,000.0 | 88.32 | 248.03 | 6,777.8 | -165.7 | -367.3 -410.7 | 442.8 | 12.56 | 12.56 | 0.00 |
| | | | 0,777.0 | - 100.7 | -4 10.7 | 442.0 | 12.00 | 12.30 | 0.00 |
| | hold at 7039.2 M | | 6 770 0 | 474.0 | 400.0 | 457.0 | 40.50 | 40.50 | 2.00 |
| 7,039.2 7,100.0 | 90.10 90.10 | 248.03 248.03 | 6,778.0 6,777.9 | -171.0 -193.7 | -423.8 -480.2 | 457.0 517.8 | 12.56 0.00 | 12.56 0.00 | 0.00 0.00 |
| | | | | | | | | | |
| 7,200.0 | 90.10 | 248.03 | 6,777.7 | -231.1 | -572.9 | 617.8 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 90.10 | 248.03 | 6,777.5 | -268.5 | -665.7 | 717.8 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 90.10 | 248.03 | 6,777.3 | -306.0 | -758.4 | 817.8 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 90.10 | 248.03 | 6,777.2 | -343.4 | -851.2 | 917.8 | 0.00 | 0.00 | 0.00 |
| 7,600.0 | 90.10 | 248.03 | 6,777.0 | -380.8 | -943.9 | 1,017.8 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.10 | 248.03 | 6,776.8 | -418.2 | -1,036.6 | 1,117.8 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.10 | 248.03 | 6,776.6 | -455.6 | -1,129.4 | 1,217.8 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.10 | 248.03 | 6,776.5 | -493.0 | -1,222.1 | 1,317.8 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.10 | 248.03 | 6,776.3 | -530.4 | -1,314.9 | 1,417.8 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.10 | 248.03 | 6,776.1 | -567.8 | -1,407.6 | 1,517.8 | 0.00 | 0.00 | 0.00 |

QUESTAR

Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company:

Questar Exploration & Production Uintah Co., UT

Project: Site:

Sec.19-T7S-R21E Brennan Federal #6

Well: Wellbore: Design:

Wellbore Lat #2 Plan #1 Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

| d Survey | | | | | | | | | |
|---------------------------|--------------------|-------------------|---------------------------|----------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,200.0 | 90.10 | 248.03 | 6,775.9 | -605.3 | -1,500.3 | 1,617.8 | 0.00 | 0.00 | 0.00 |
| 8,300.0 | 90.10 | 248.03 | 6,775.8 | -642.7 | -1,593.1 | 1,717.8 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.10 | 248.03 | 6,775.6 | -680.1 | -1,685.8 | 1,817.8 | 0.00 | 0.00 | 0.00 |
| 8,500.0 | 90.10 | 248.03 | 6,775.4 | <i>-</i> 717.5 | -1,778.5 | 1,917.8 | 0.00 | 0.00 | 0.00 |
| 8,600.0 | 90.10 | 248.03 | 6,775.3 | -754.9 | -1,871.3 | 2,017.8 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.10 | 248.03 | 6,775.1 | -792.3 | -1,964.0 | 2,117.8 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.10 | 248.03 | 6,774.9 | -829.7 | -2,056.8 | 2,217.8 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.10 | 248.03 | 6,774.7 | -867.1 | -2,149.5 | 2,317.8 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.10 | 248.03 | 6,774.6 | -904.6 | -2,242.2 | 2,417.8 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.10 | 248.03 | 6,774.4 | -942.0 | -2,335.0 | 2,517.8 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.10 | 248.03 | 6,774.2 | -979.4 | -2,427.7 | 2,617.8 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.10 | 248.03 | 6,774.0 | -1,016.8 | -2,520.4 | 2,717.8 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.10 | 248.03 | 6,773.9 | -1,054.2 | -2,613.2 | 2,817.8 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.10 | 248.03 | 6,773.7 | -1,091.6 | -2,705.9 | 2,917.8 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.10 | 248.03 | 6,773.5 | -1,129.0 | -2,798.7 | 3,017.8 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.10 | 248.03 | 6,773.3 | -1,166.4 | -2,891.4 | 3,117.8 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.10 | 248.03 | 6,773.2 | -1,203.9 | -2,984.1 | 3,217.8 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.10 | 248.03 | 6,773.0 | -1,241.3 | -3,076.9 | 3,317.8 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.10 | 248.03 | 6,772.8 | -1,278.7 | -3,169.6 | 3,417.8 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.10 | 248.03 | 6,772.6 | -1,316.1 | -3,262.3 | 3,517.8 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.10 | 248.03 | 6,772.5 | -1,353.5 | -3,355.1 | 3,617.8 | 0.00 | 0.00 | 0.00 |
| TD at 10225. | 6 - PBHL Brenna | an #6 Lat #2 - Pl | BHL Brennan # | 6 Lat #2 | | | | | |
| 10,225.6 | 90.10 | 248.03 | 6,772.4 | -1,363.1 | -3,378.8 | 3,643.4 | 0.00 | 0.00 | 0.00 |

| Targets | | | | | | | | | |
|---|------------------|-----------------|-------------|---------------|---------------|------------------|-----------------|------------------|------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| PBHL Brennan #6 Lat #; - plan hits target - Point | 0.00 | 0.00 | 6,772.4 | -1,363.1 | -3,378.8 | 7,246,364.33 | 2,166,187.48 | 40° 11' 52.647 N | 109° 37' 3.366 W |

| Casing Points | | | ··· | | |
|---------------|---------------------------|---------------------------|------------------------|---------------------------|-------------------------|
| | Measured Depth (ft) | Vertical Depth (ft) | Name | Casing Diameter (") | Hole Diameter (") |
| | (14) | (14) | Maine | () | \ ', |
| | 6,342.0 | 6,342.0 | Casing Collar 6342' MD | 5-1/2 | 6 |

| rmations | | | | | | |
|----------|---------------------------|---------------------------|--------------------------|-----------|------------|-------------------------|
| | Measured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| | 3,300.0 | 3,300.0 | Grean River | | -0.10 | 248.03 |
| | 6,552.6 | 6,543.0 | G1 Lime Top Porosity | | -0.10 | 248.03 |
| | 6,557.2 | 6,547.0 | G1 Lime Bottom Porosity | | -0.10 | 248.03 |
| | 6,988.8 | 6,776.0 | H4a Lime Top Porosity | | -0.10 | 248.03 |
| | | 6,782.0 | H4a Lime Bottom Porosity | | -0.10 | 248.03 |



Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company:

Questar Exploration & Production

Project: Site: Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6

Well: Brennan Federa
Wellbore: Wellbore Lat #2
Design: Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

| l | |
|------|-------------|
| Plan | Annotations |

| Measured | Measured Vertical | Local Coor | dinates | |
|---------------|-------------------|---------------|---------------|--------------------------------|
| Depth (ft) | Depth (ft) | +N/-S (ft) | +E/-W (ft) | Comment |
| 6,321.8 | 6,321.8 | 0.0 | 0.0 | KOP / Start Build 12.56°. |
| 7,039.2 | 6,778.0 | -171.0 | -423.8 | Start 3186.5 hold at 7039.2 MD |
| 10,225.6 | 6,772.4 | -1,363.1 | -3,378.8 | TD at 10225.6 |

QUESTAR

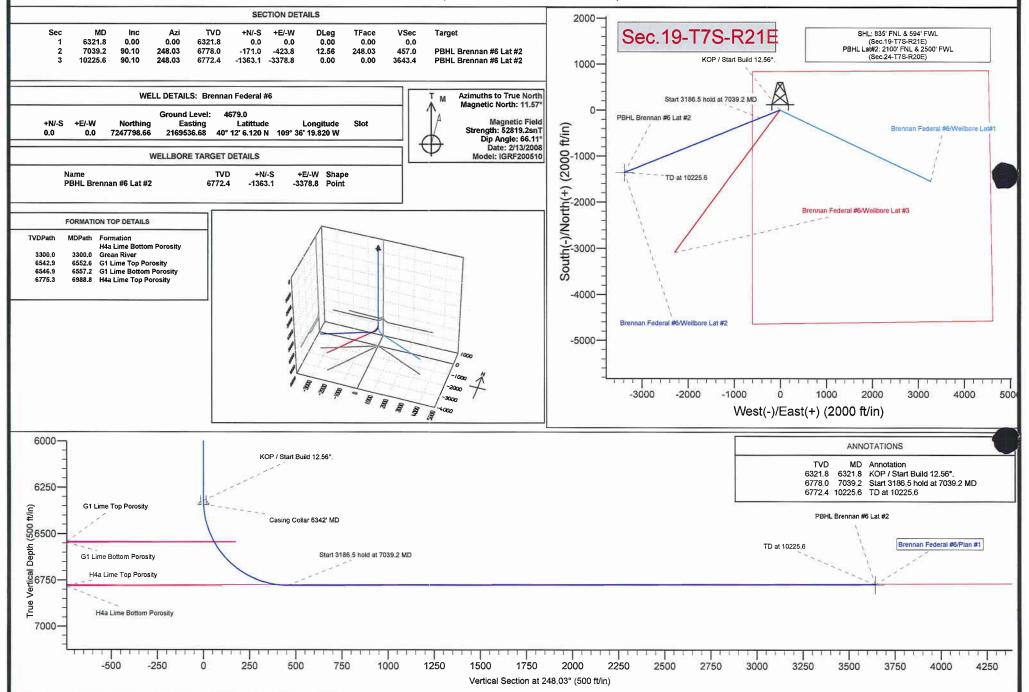
Company: Questar Exploration & Production

Field: Uintah Co., UT Location: Sec.19-T7S-R21E Well: Brennan Federal #6

Wellbore Lat #2

Plan: Plan #1 (Brennan Federal #6/Wellbore Lat #2)







Questar Exploration & Production

Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6 Wellbore Lat #3

Plan: Plan #1

Pathfinder Planning Report

18 March, 2008



Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company: Project:

Questar Exploration & Production Uintah Co., UT

Site:

Sec.19-T7S-R21E Brennan Federal #6

Well: Wellbore: Design:

Wellbore Lat #3

Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

Minimum Curvature

Project

Uintah Co., UT

Map System:

US State Plane 1983

Geo Datum:

North American Datum 1983

Map Zone:

Utah Central Zone

System Datum:

Mean Sea Level

Site

Sec.19-T7S-R21E

Site Position:

Lat/Long

Northing: Easting:

7,247,798.66 ft 2,169,536.68 ft

Latitude:

40° 12' 6.120 N

Position Uncertainty:

0.0 ft

Slot Radius:

Longitude: **Grid Convergence:** 109° 36' 19.820 W

1.21 °

Well

From:

Brennan Federal #6

Well Position

+N/-S +E/-W

0.0 ft 0.0 ft 0.0 ft Northing: Easting:

Wellhead Elevation:

2/13/2008

7,247,798.66 ft

2,169,536.68 ft

11.57

ft

Latitude: Longitude: **Ground Level:**

40° 12' 6.120 N 109° 36' 19.820 W

52,819

4,679.0 ft

Position Uncertainty

Magnetics

Wellbore

Model Name

IGRF200510

Wellbore Lat #3

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

Plan #1

Audit Notes:

Version:

Design

Phase:

PROTOTYPE

Tie On Depth:

6,110.0

Vertical Section:

Depth From (TVD)

+N/-S

+E/-W

Direction (°)

66.11

(ft) 0.0 (ft) 0.0

(ft) 0.0

216.53

| Plan | Sections | |
|------|----------|--|
| м | easured | |

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) | TFO (°) | Target |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|----------------------------|---------------------------|------------|--------------------|
| 6,110.0 | 0.00 | 0.00 | 6,110.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 6,789.8 | 90.75 | 216.53 | 6,539.1 | -349.4 | -258.8 | 13.35 | 13.35 | 0.00 | 216.53 | PBHL Brennan #6 La |
| 10,210.0 | 90.75 | 216.53 | 6,494.4 | -3,097.5 | -2,294.5 | 0.00 | 0.00 | 0.00 | 0.00 | PBHL Brennan #6 La |

Pathfinder Energy Services

Planning Report



Database: Company: EDM 2003.16 Single User Db

Project: Site:

Well:

Questar Exploration & Production

Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6

Wellbore: Wellbore Lat #3 Design:

Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

Minimum Curvature

| Survey | | | | | | | | | |
|-------------------|------------------|---------|-------------------|----------------------|-----------------|---------------------|----------------|---------------|--------------|
| Measured Depth | Inclination | Azimuth | Vertical Depth | +N/-S | +E/-W | Vertical Section | Dogleg Rate | Build Rate | Turn Rate |
| (ft) | (°) | (°) | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | (°/100ft) |
| KOP / Start | Build 13.35° | | | | | | | | |
| 6,110.0 | 0.00 | 0.00 | 6,110.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 |
| 6,125.0 | 2.00 | 216.53 | 6,125.0 | -0.2 | -0.2 | 0.3 | 13.35 | 13.35 | 0.00 |
| - | | 210.55 | 0,120.0 | -0.2 | -0.2 | 0.5 | 13.33 | 13.33 | 0.00 |
| Casing Colla | | | | | | | | | |
| 6,127.0 | 2.27 | 216.53 | 6,127.0 | -0.3 | -0.2 | 0.3 | 13.35 | 13.35 | 0.00 |
| 6,150.0 | 5.34 | 216.53 | 6,149.9 | -1.5 | -1.1 | 1.9 | 13.35 | 13.35 | 0.00 |
| 6,175.0 | 8.68 | 216.53 | 6,174.8 | -3.9 | -2.9 | 4.9 | 13.35 | 13.35 | 0.00 |
| 6,200.0 | 12.02 | 216.53 | 6,199.3 | -7.6 | -5.6 | 9.4 | 13.35 | 13.35 | 0.00 |
| 6,225.0 | 15.35 | 216.53 | 6,223.6 | -12.3 | -9.1 | 15.3 | 13.35 | 13.35 | 0.00 |
| • | | | | | | | | | |
| 6,250.0 | 18.69 | 216.53 | 6,247.5 | -18.2 | -13.5 | 22.6 | 13.35 | 13.35 | 0.00 |
| 6,275.0 | 22.03 | 216.53 | 6,271.0 | -25.2 | -18.6 | 31.3 | 13.35 | 13.35 | 0.00 |
| 6,300.0 | 25.37 | 216.53 | 6,293.9 | -33.2 | -24.6 | 41.4 | 13.35 | 13,35 | 0.00 |
| 6,325.0 | 28.70 | 216.53 | 6,316.1 | -42.4 | -31.4 | 52.7 | 13.35 | 13.35 | 0.00 |
| 6,350.0 | 32.04 | 216.53 | 6,337.7 | -52.5 | -38.9 | 65.4 | 13.35 | 13.35 | 0.00 |
| 6,375.0 | 35.38 | 216.53 | 6,358.5 | -63.7 | -47.2 | 79.2 | 13.35 | 13.35 | 0.00 |
| · | | | | | | | | | |
| 6,400.0 | 38.72 | 216.53 | 6,378.4 | -75.8 | -56.1 | 94.3 | 13.35 | 13.35 | 0,00 |
| 6,425.0 | 42.05 | 216.53 | 6,397.5 | -88.8 | -65.8 | 110.5 | 13.35 | 13.35 | 0.00 |
| 6,450.0 | 45.39 | 216.53 | 6,415.5 | -102.7 | -76.1 | 127.8 | 13.35 | 13.35 | 0.00 |
| 6,475.0 | 48.73 | 216.53 | 6,432.6 | -117.4 | -86.9 | 146.1 | 13.35 | 13.35 | 0.00 |
| 6,500.0 | 52.07 | 216.53 | 6,448.5 | -132.9 | -98.4 | 165.3 | 13.35 | 13.35 | 0.00 |
| | 55.45 | 040.50 | 0.400.0 | 440.4 | | | | 40.00 | |
| 6,525.0 | 55.40 | 216.53 | 6,463.3 | -149.1 | -110.4 | 185.5 | 13.35 | 13.35 | 0.00 |
| 6,550.0 | 58.74 | 216.53 | 6,476.9 | -165.9 | -122.9 | 206.5 | 13.35 | 13.35 | 0.00 |
| 6,575.0 | 62.08 | 216.53 | 6,489.2 | -183.4 | -135.8 | 228.2 | 13.35 | 13.35 | 0.00 |
| 6,600.0 | 65.42 | 216.53 | 6,500.3 | -201.4 | -149.2 | 250.6 | 13.35 | 13.35 | 0.00 |
| 6,625.0 | 68.75 | 216.53 | 6,510.0 | -219.9 | -162.9 | 273.6 | 13.35 | 13.35 | 0.00 |
| 0.050.0 | 70.00 | 046.50 | 0.540.4 | 020.0 | 476.0 | 207.0 | 40.05 | 40.05 | 0.00 |
| 6,650.0 | 72.09 | 216.53 | 6,518.4 | -238.8 | -176.9 | 297.2 | 13.35 | 13.35 | 0.00 |
| 6,675.0 | 75.43 | 216.53 | 6,525.4 | -258.1 | -191.2 | 321.2 | 13.35 | 13.35 | 0.00 |
| 6,700.0 | 78.77 | 216.53 | 6,531.0 | -277.7 | -205.7 | 345.6 | 13.35 | 13.35 | 0.00 |
| 6,725.0 | 82.10 | 216.53 | 6,535.1 | -297.5 | -220.4 | 370.2 | 13.35 | 13.35 | 0.00 |
| 6,750.0 | 85.44 | 216.53 | 6,537.8 | -317.5 | -235.2 | 395.1 | 13.35 | 13.35 | 0.00 |
| G1 Lime Top | Dorositu | | | | | | | | |
| - | • | 040.50 | 0.507.0 | 047.5 | 205.0 | 005.4 | 0.00 | 0.00 | 0.00 |
| 6,750.1 | 85.44 | 216.53 | 6,537.8 | -317.5 | -235.2 | 395.1 | 0.00 | 0.00 | 0.00 |
| 6,775.0 | 88.78 | 216.53 | 6,539.1 | -337.5 | -250.0 | 420.0 | 13.38 | 13.38 | 0.00 |
| Start 3420.3 | hold at 6789.8 M | ID | | | | | | | |
| 6,789.8 | 90.75 | 216.53 | 6,539.1 | -349.4 | -258.8 | 434.8 | 13.35 | 13.35 | 0.00 |
| 6,800.0 | 90.75 | 216.53 | 6,539.0 | -357.6 | -264.9 | 445.0 | 0.00 | 0.00 | 0.00 |
| 6,900.0 | 90.75 | 216.53 | 6,537.7 | -437.9 | -324.4 | 545.0 | 0.00 | 0.00 | 0.00 |
| | | 040 50 | G F00 4 | E40.0 | | | | 0.00 | 0.00 |
| 7,000.0 | 90.75 | 216.53 | 6,536.4 | -518.3 | -383.9 | 645.0 | 0.00 | 0.00 | 0.00 |
| 7,100.0 | 90.75 | 216.53 | 6,535.1 | -598.6 | -443.4 | 745.0 | 0.00 | 0.00 | 0.00 |
| 7,200.0 | 90.75 | 216.53 | 6,533.8 | -679.0 | -503.0 | 845.0 | 0.00 | 0.00 | 0.00 |
| 7,300.0 | 90.75 | 216.53 | 6,532.5 | -759.3 | -562.5 | 945.0 | 0.00 | 0.00 | 0.00 |
| 7,400.0 | 90.75 | 216.53 | 6,531.2 | -839.7 | -622.0 | 1,045.0 | 0.00 | 0.00 | 0.00 |
| 7,500.0 | 90.75 | 216.53 | 6,529.8 | -920.0 | 694 5 | 1,145.0 | 0.00 | 0.00 | 0.00 |
| | | | • | | -681.5 741.0 | | | | |
| 7,600.0 | 90.75 | 216.53 | 6,528.5 | -1,000.4 | -741.0 | 1,245.0 | 0.00 | 0.00 | 0.00 |
| 7,700.0 | 90.75 | 216.53 | 6,527.2 | -1,080.7 | -800.6 | 1,344.9 | 0.00 | 0.00 | 0.00 |
| 7,800.0 | 90.75 | 216.53 | 6,525.9 | -1,161.1 | -860.1 | 1,444.9 | 0.00 | 0.00 | 0.00 |
| 7,900.0 | 90.75 | 216.53 | 6,524.6 | -1,241.4 | -919.6 | 1,544.9 | 0.00 | 0.00 | 0.00 |
| 8,000.0 | 90.75 | 216.53 | 6,523.3 | -1,321.8 | -979.1 | 1,644.9 | 0.00 | 0.00 | 0.00 |
| 8,100.0 | 90.75 | 216.53 | 6,522.0 | -1,321.0 -1,402.1 | -1,038.6 | 1,744.9 | 0.00 | 0.00 | 0.00 |
| 8,200.0 | 90.75 | 216.53 | 6,520.7 | -1,402.1 -1,482.5 | -1,038.0 | | 0.00 | 0.00 | 0.00 |
| • | | | | • | • | 1,844.9 | | | |
| 8,300.0 | 90.75 | 216.53 | 6,519.4 | -1,562.8 | -1,157.7 | 1,944.9 | 0.00 | 0.00 | 0.00 |
| 8,400.0 | 90.75 | 216.53 | 6,518.1 | -1,643.2 | -1,217.2 | 2,044.9 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |

Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company: Project: Questar Exploration & Production Uintah Co., UT

Site:

Sec.19-T7S-R21E Brennan Federal #6 Wellbore Lat #3

Well: Wellbore: Design:

Plan #1

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

Minimum Curvature

| d Survey | | | | | | | | | |
|---------------------------|--------------------|------------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,600.0 | 90.75 | 216.53 | 6,515.4 | -1,803.9 | -1,336.2 | 2,244.9 | 0.00 | 0.00 | 0.00 |
| 8,700.0 | 90.75 | 216.53 | 6,514.1 | -1,884.2 | -1,395.7 | 2,344.9 | 0.00 | 0.00 | 0.00 |
| 8,800.0 | 90.75 | 216.53 | 6,512.8 | -1,964.6 | -1,455.2 | 2,444.9 | 0.00 | 0.00 | 0.00 |
| 8,900.0 | 90.75 | 216.53 | 6,511.5 | -2,044.9 | -1,514.8 | 2,544.8 | 0.00 | 0.00 | 0.00 |
| 9,000.0 | 90.75 | 216.53 | 6,510.2 | -2,125.3 | -1,574.3 | 2,644.8 | 0.00 | 0.00 | 0.00 |
| 9,100.0 | 90.75 | 216.53 | 6,508.9 | -2,205.6 | -1,633.8 | 2,744.8 | 0.00 | 0.00 | 0.00 |
| 9,200.0 | 90.75 | 216.53 | 6,507.6 | -2,286.0 | -1,693.3 | 2,844.8 | 0.00 | 0.00 | 0.00 |
| 9,300.0 | 90.75 | 216.53 | 6,506.3 | -2,366.3 | -1,752.8 | 2,944.8 | 0.00 | 0.00 | 0.00 |
| 9,400.0 | 90.75 | 216.53 | 6,505.0 | -2,446.7 | -1,812.4 | 3,044.8 | 0.00 | 0.00 | 0.00 |
| 9,500.0 | 90.75 | 216.53 | 6,503.7 | -2,527.0 | -1,871.9 | 3,144.8 | 0.00 | 0.00 | 0.00 |
| 9,600.0 | 90.75 | 216.53 | 6,502.4 | -2,607.4 | -1,931.4 | 3,244.8 | 0.00 | 0.00 | 0.00 |
| 9,700.0 | 90.75 | 216.53 | 6,501.1 | -2,687.7 | -1,990.9 | 3,344.8 | 0.00 | 0.00 | 0.00 |
| 9,800.0 | 90.75 | 216.53 | 6,499.7 | -2,768.1 | -2,050.4 | 3,444.8 | 0.00 | 0.00 | 0.00 |
| 9,900.0 | 90.75 | 216.53 | 6,498.4 | -2,848.4 | -2,109.9 | 3,544.8 | 0.00 | 0.00 | 0.00 |
| 10,000.0 | 90.75 | 216.53 | 6,497.1 | -2,928.8 | -2,169.5 | 3,644.7 | 0.00 | 0.00 | 0.00 |
| 10,100.0 | 90.75 | 216.53 | 6,495.8 | -3,009.1 | -2,229.0 | 3,744.7 | 0.00 | 0.00 | 0.00 |
| 10,200.0 | 90.75 | 216.53 | 6,494.5 | -3,089.5 | -2,288.5 | 3,844.7 | 0.00 | 0.00 | 0.00 |
| TD at 10210. | 0 - PBHL Brenna | an #6 Lat #3 - P | BHL Brennan # | 6 Lat #3 | | | | | |
| 10,210.0 | 90.75 | 216.53 | 6,494.4 | -3,097.5 | -2,294.5 | 3,854.8 | 0.00 | 0.00 | 0.00 |

| Targets | | | | | | | | | |
|---|------------------|-----------------|-------------|---------------|---------------|------------------|-----------------|------------------|-------------------|
| Target Name - hit/miss target - Shape | Dip Angle (°) | Dip Dir. (°) | TVD (ft) | +N/-S (ft) | +E/-W (ft) | Northing (ft) | Easting (ft) | Latitude | Longitude |
| PBHL Brennan #6 Lat #: - plan hits target - Point | 0.00 | 0.00 | 6,494.4 | -3,097.5 | -2,294.5 | 7,244,653.23 | 2,167,308.32 | 40° 11' 35.507 N | 109° 36' 49.389 W |

| Casing Points | | | *************************************** | | | |
|---------------|----------|----------|---|----------|---------|---|
| | Measured | Vertical | | Casing | Hole | |
| | Depth | Depth | | Diameter | Diamete | Г |
| | (ft) | (ft) | Nam | e (") | (") | |
| | 6,127.0 | 6,127.0 | Casing Collar 6127' MD | 5-1/ | /2 | 6 |

| Formations | | | | | | |
|------------|---------------------------|---------------------------|--------------------------|-----------|------------|-------------------------|
| ı | feasured Depth (ft) | Vertical Depth (ft) | Name | Lithology | Dip (°) | Dip Direction (°) |
| | 3,300.0 | 3,300.0 | Green River | | -0.75 | 216.53 |
| | 6,750.1 | 6,543.0 | G1 Lime Top Porosity | | -0.75 | 216.53 |
| | | 6,547.0 | G1 Lime Bottom Porosity | | -0.75 | 216.53 |
| | | 6,776.0 | H4a Lime Top Porosity | | -0.75 | 216.53 |
| | | 6,782.0 | H4a Lime Bottom Porosity | | -0.75 | 216.53 |



Pathfinder Energy Services

Planning Report



Database:

EDM 2003.16 Single User Db

Company:

Questar Exploration & Production

6,494.4

-3,097.5

Project: Site: Uintah Co., UT Sec.19-T7S-R21E Brennan Federal #6

Well: Wellbore: Design:

Wellbore Lat #3

Plan #1

10,210.0

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well Brennan Federal #6

WELL @ 4691.0ft (Original Well Elev) WELL @ 4691.0ft (Original Well Elev)

True

Minimum Curvature

| Plan Annotati | ons | | | | | |
|---------------|----------|----------|------------|---------|--------------------------------|--|
| | Measured | Vertical | Local Coor | dinates | | |
| | Depth | Depth | +N/-S | +E/-W | | |
| | (ft) | (ft) | (ft) | (ft) | Comment | |
| | 6,110.0 | 6,110.0 | 0.0 | 0.0 | KOP / Start Build 13.35° | |
| | 6,789.8 | 6,539.1 | -349.4 | -258.8 | Start 3420.3 hold at 6789.8 MD | |

TD at 10210.0

-2,294.5

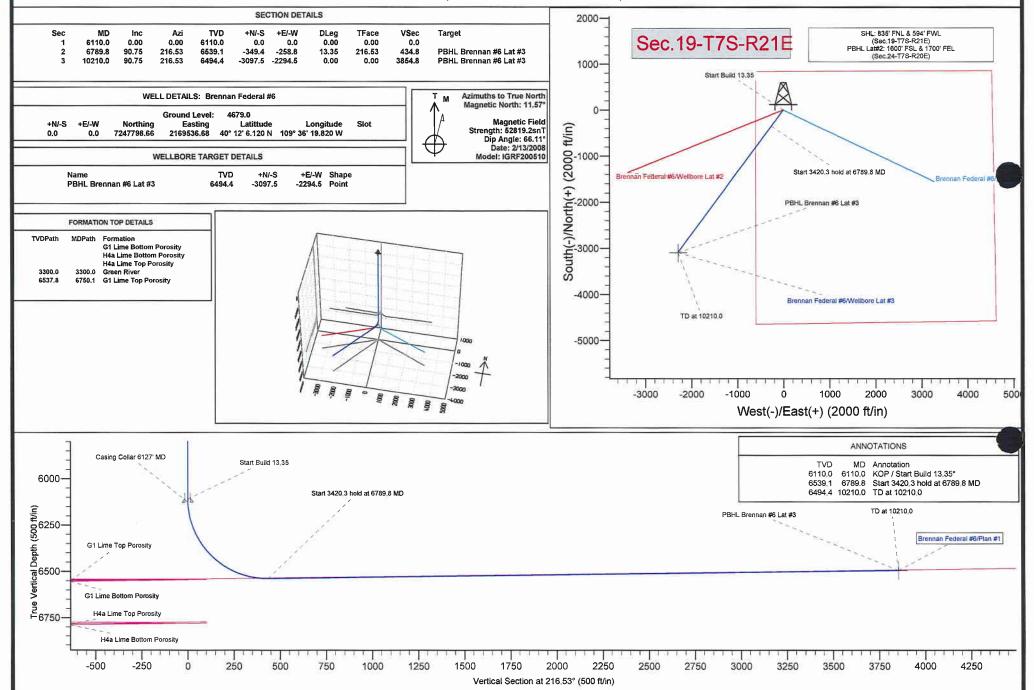
Company: Questar Exploration & Production

Field: Uintah Co., UT Location: Sec.19-T7S-R21E Well: Brennan Federal #6

Wellbore Lat #3

Plan: Plan #1 (Brennan Federal #6/Wellbore Lat #3)





| , FIELD:REDWASH | | GL: 4679' KBE: 4691' | Start Date:03-12-05 Finsh Date:03-12-05 | | | | | |
|---|-----------------|----------------------|---|--|--|--|--|--|
| WELL NAME: BREN-6 | | TD:7150' PBTD:6975' | | | | | | |
| Location: | | TB.7100 TB1D.0970 | Reason for Pull/Workover: | | | | | |
| NW of NW SEC 19 TO Uintah County, Utah | WN 7S RANGE 21E | | PUMP AND POLISH ROD CHANGE | | | | | |
| | Wellbore | | | | | | | |
| | Schematic | | Tubing Landing Detail: | | | | | |
| Surface casing | | | Description Size Footage Depth | | | | | |
| Size 8 5/8" | | | KB to Tbg Head12.0012.00 | | | | | |
| Weight 24# Grade K-55 | | 888 | STRETCH 1.50 12.5 206 JNTS 2 7/8" J-55 2 7/8" 6489.20 6501.7 | | | | | |
| Cemented | | | TAC 4.825 2.73 6504.43 | | | | | |
| W/ 350 SXS Set @ 333' | | | 10 JNTS 2 7/8" 2 7/8" 313.14 6817.57 | | | | | |
| HOLE SIZE 13 3/4" | _ | | PSN 2.25 1.10 6818.67 3" MUD ANCHOR 2.875 30.87 6849.54 | | | | | |
| | | - | EOT 6849.54 | | | | | |
| | | | TUBING INFORMATION 2 7/8 " 8RD EUE Condition: | | | | | |
| | | TOC @ 2998' | New: Used: <u>X</u> Rerun: | | | | | |
| | | OPEN PERFS | Grade: J-55 Weight (#/ft): 6.50 | | | | | |
| | | OFENFERFS | Weight (#/ft): 6.50 | | | | | |
| | | | | | | | | |
| | | | Sucker Rod Detail: Size #Rods Centralized | | | | | |
| | | | 1 1/2"X26" POLISH ROD (NEW) | | | | | |
| | | | 1" 2' AND 4' SUBS AND 2= 1"X 6' 1" 79 W/ METAL GUIDES | | | | | |
| | | | 7/8" 18 W/ METAL GUIDES | | | | | |
| | | | 3/4" 105 SLICK | | | | | |
| | | | 7/8" 69 SLICK Rod Information | | | | | |
| | | | Condition: | | | | | |
| | | | New: Used: X Rerun: Grade: J-55 | | | | | |
| | | | Manufacture: | | | | | |
| EXCLUDED GAS ZONE | | | | | | | | |
| | | | Pump Information: | | | | | |
| @ 2670'-2671' | | | API Designation 2 1/2"X1 1/2"X12X15X16 RHAC | | | | | |
| | | | Example: PUMP SN# #1679 | | | | | |
| | | , | ORIGINAL RUN DATE | | | | | |
| | | | RERUN NEW RUN X | | | | | |
| | | | ESP Well Flowing Well | | | | | |
| | | | Cable Size: RN @ 1.81" PKR @ | | | | | |
| | | | Pump Intake @ PKR @ BOT @ | | | | | |
| | | | | | | | | |
| | | | Wellhead Detail: | | | | | |
| | | 05 401 0550 | 7 1/16" 2000# | | | | | |
| | = | 6542'-6550 | 7 1/16" 3000# X 7 1/16" 5000# | | | | | |
| | | 6630'-6636' | Other: 10" | | | | | |
| | | 6650'-6658' | Hanger: YesNo X | | | | | |
| | | 0000 | | | | | | |
| | | | SUMMERY | | | | | |
| | | | 1. 6776'-6792', BROKE DOWN W/ 250 GALS OF 15% HCI, THEN ACIDIZED W/ 10,000 GALS | | | | | |
| | | 6705'-6716' | 15% HCI, AFTER RECOVERING LOAD, SWABBED BACK 90% OIL @ 6 BPH. | | | | | |
| | | ₩ | 2. SET CIBP @ 2700' AND PERFORATED GAS ZONE @ 2670-2671', IMMEDIATELY SQUEEZED SAME W\ 250SX. OF CLASS G, LATER RUNNING CBL AND SHOWING GOOD | | | | | |
| | | 6730'-6738' | BOND FROM 2671 TO 1778. | | | | | |
| | | 800 I | NOTE: 2/1988 CLEANED OUT TO 6871' PERFORATED ZONES 6630' THROUGH 6738', THE ACIDIZED ZONES W\ 6,000 GALS OF 15% HCI. | | | | | |
| | | 6776'-6792' | 3-12-05 PUMP AND POLISH ROD CHANGE | | | | | |
| | | | | | | | | |
| Production casing | | PSN, TAC | | | | | | |
| Size 5 1/2" | | EOT | | | | | | |
| Weight <u>17#</u> | | | | | | | | |
| Grade/K-55 CEMENTED | | | | | | | | |
| W/ 150 SXS | | PBTD @7258' | | | | | | |
| SET @ 7033' HOLE SIZE 7 7/8" | | TD @ 7300' | | | | | | |
| | <u></u> | | | | | | | |
| Prepared Rushii CCC 144 | -K6UN | Data 2 12 05 | | | | | | |
| Prepared By:AILESE JAC | CVOON | Date 3-12-05 | | | | | | |

Lessee's or Operator's Representative:

Red Wash Representative

Jan Nelson Red Wash Rep. Questar Exploration & Production Co. 11002 East 17500 South Vernal, Utah 84078 (435) 781-4331

Certification:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

Questar Exploration & Production Co. will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Questar E & P Inc. its' contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

| Aana Bills | 10/13/08 |
|-------------|----------|
| Laura Bills | Date |

QUESTAR EXPLR. & PROD.

BB #6

LOCATED IN UINTAH COUNTY, UTAH SECTION 19, T7S, R21E, S.L.B.&M.

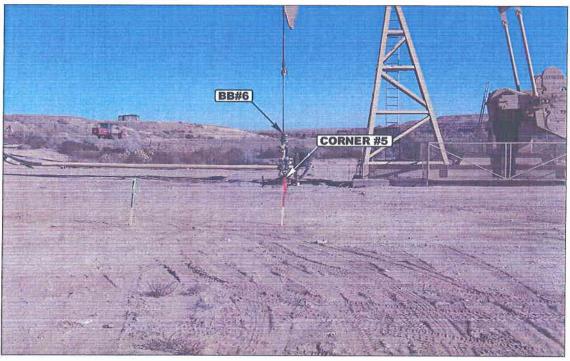


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: SOUTHEASTERLY

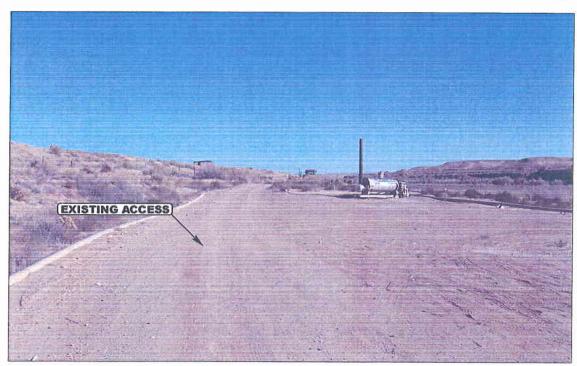


PHOTO: VIEW OF EXISTING ACCESS

CAMERA ANGLE: NORTHEASTERLY



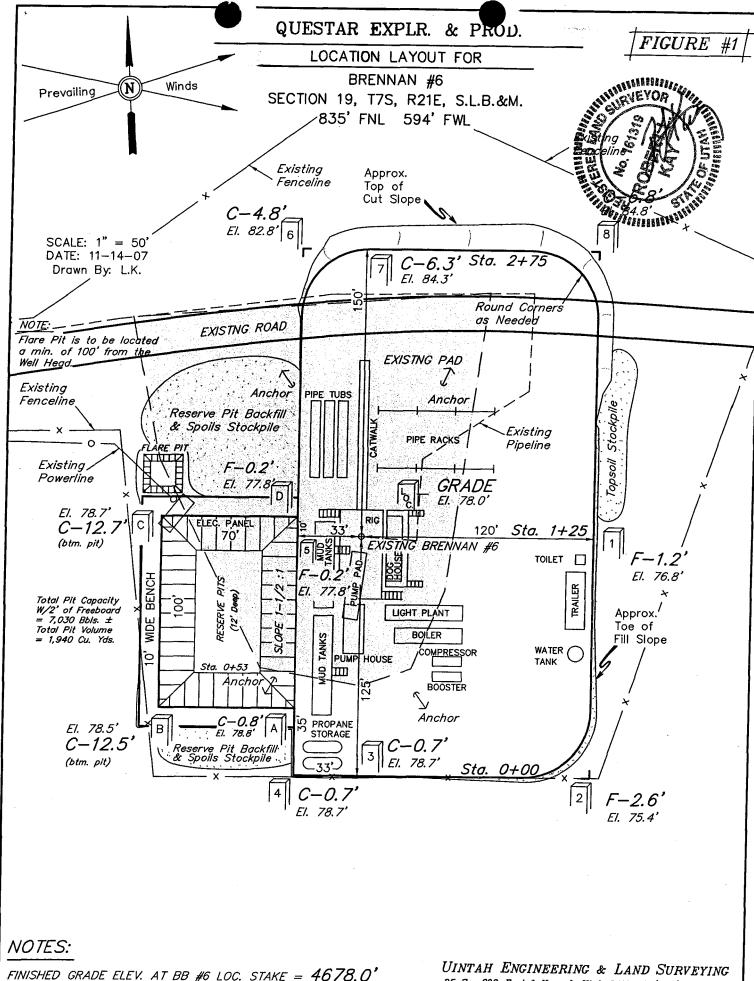
Uintah Engineering & Land Surveying 85 South 200 East Vernal, Utah 84078 435-789-1017 uels@uelsinc.com

LOCATION PHOTOS

MONTH DAY YEAR

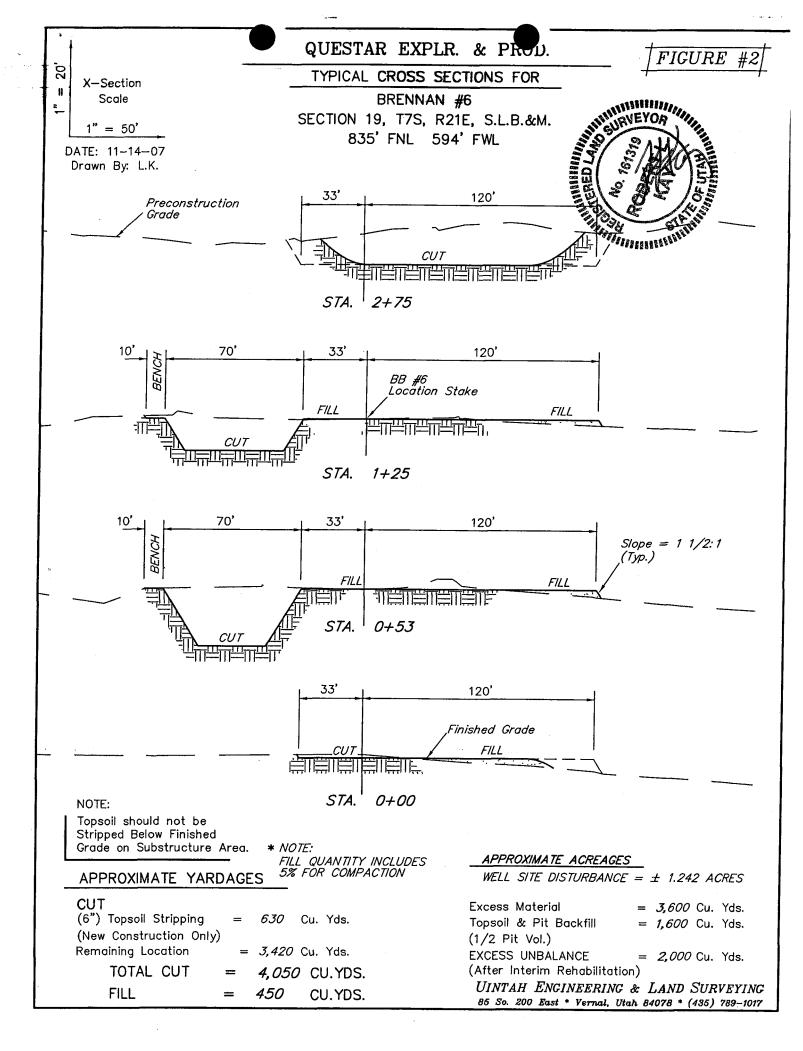
РНОТО

TAKEN BY: D.A. | DRAWN BY: Z.L. | REVISED: 00-00-00



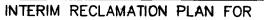
FINISHED GRADE ELEV. AT BB #6 LOC. STAKE = 4678.0"

85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017



QUESTAR EXPLR. & PROD.

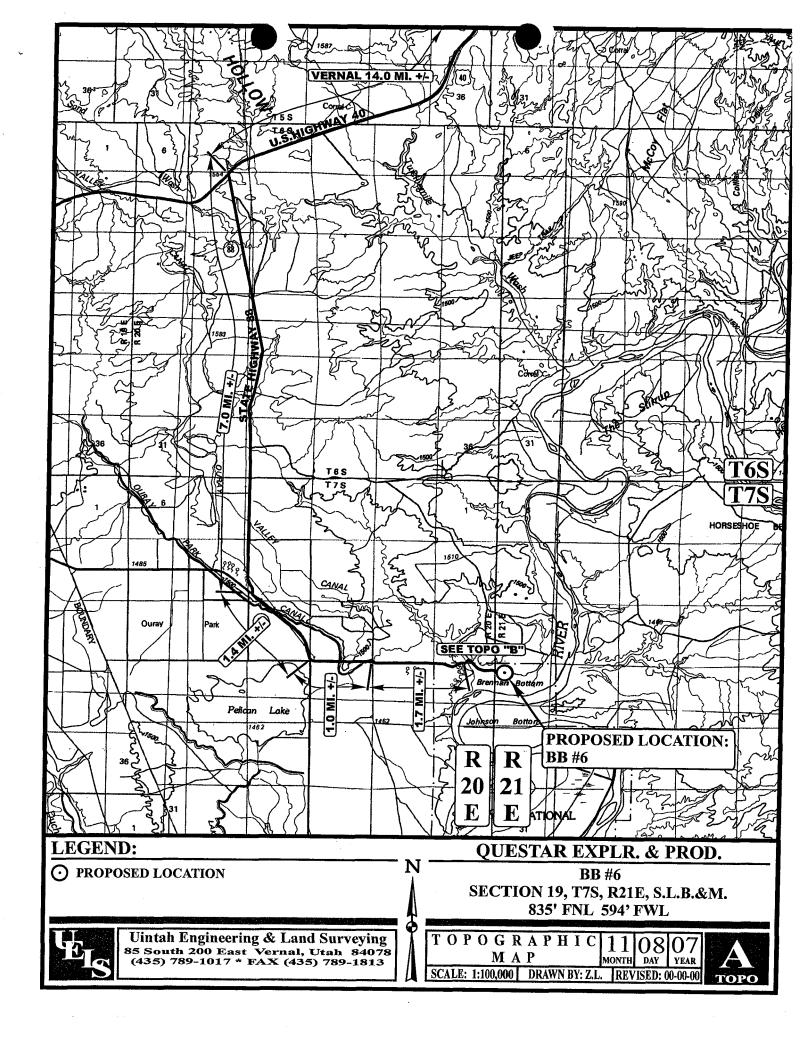


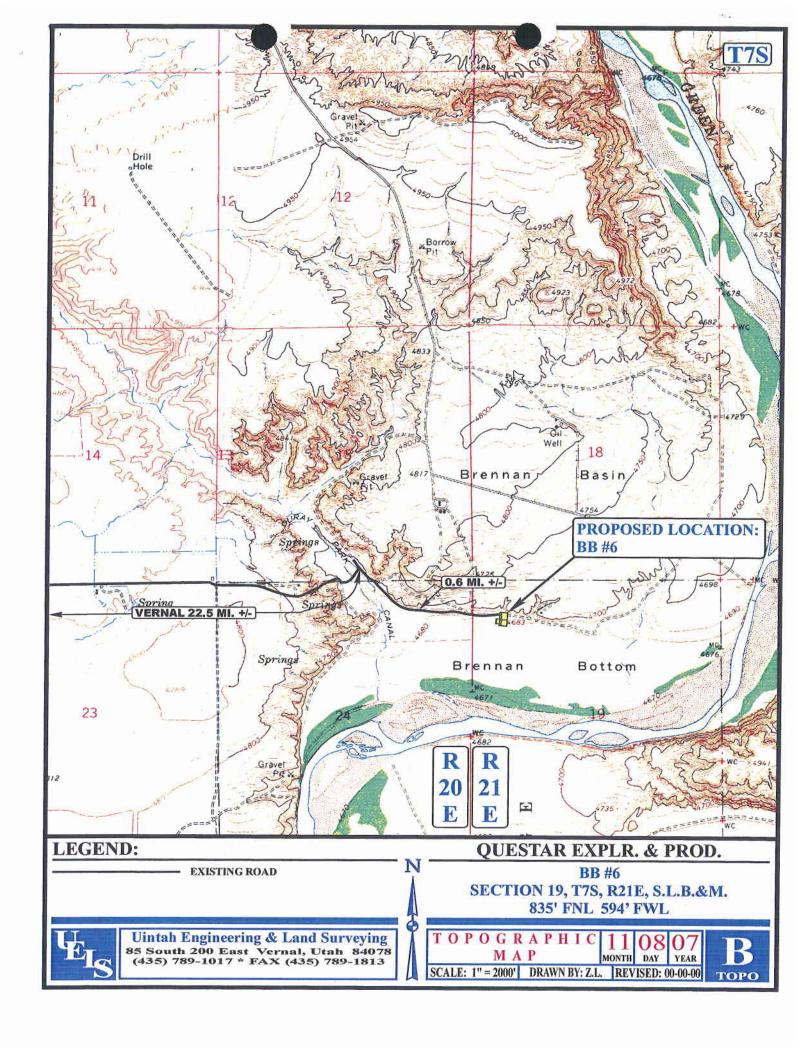


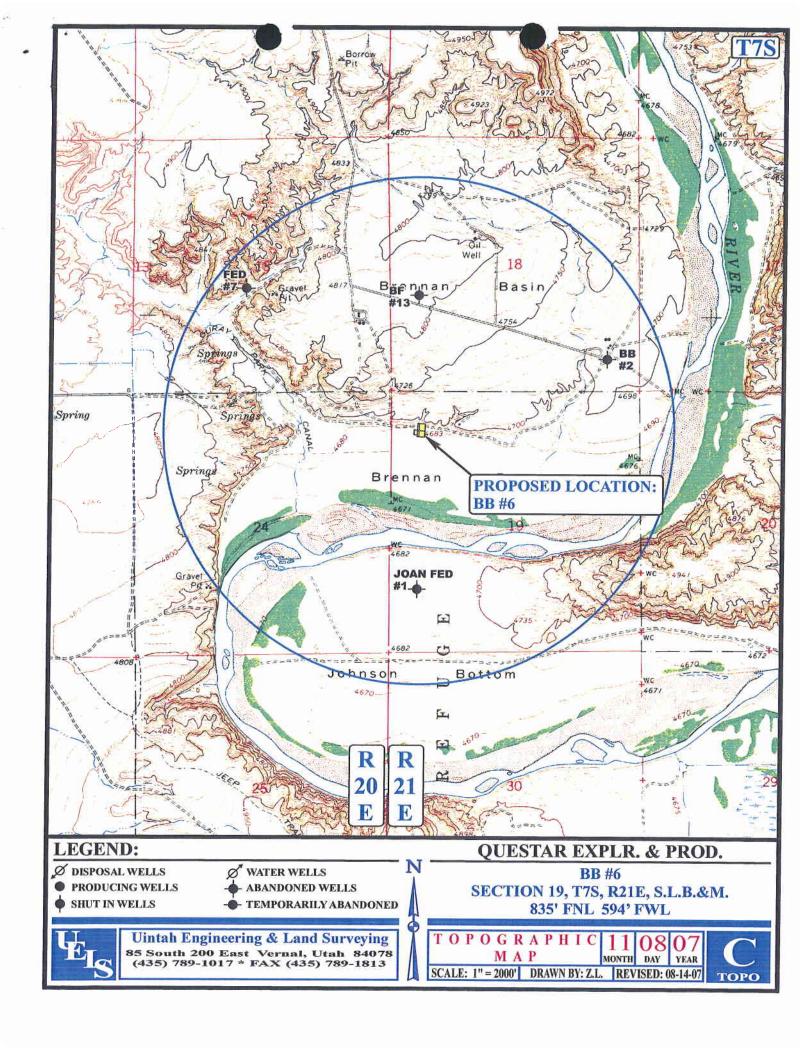
BRENNAN #6 SECTION 19, T7S, R21E, S.L.B.&M. 835' FNL 594' FWL



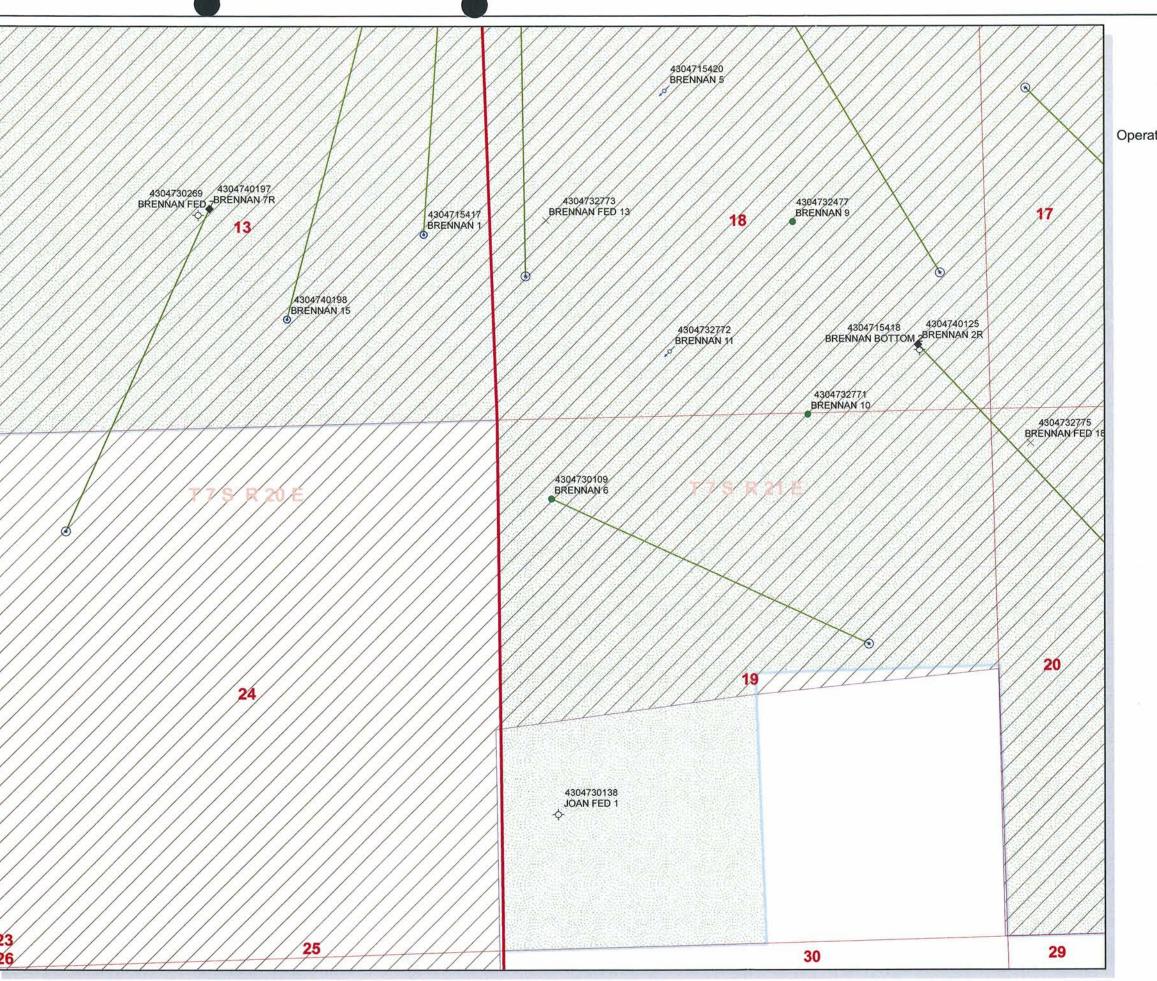
SCALE: 1" = 50' DATE: 11-14-07 Drawn By: L.K. EXISTNG ROAD OWELL HEAD







| | APPLICATION FOR | | O DRILL | | | | |
|------------------------------------|---|---|---|-------------|----------|--|--|
| APD RECEIVE | ED: 10/16/2008 | | API NO. ASSI | GNED: 43-04 | 7-30109 | | |
| WELL NAME: OPERATOR: CONTACT: | BRENNAN 6 QUESTAR EXPLORATION & (N5085) JAN NELSON | | PHONE NUMBER: 435-781-4301 | | | | |
| PROPOSED LO | OCATION: | | INSPECT LOCATI | N BY: / | / | | |
| NWNW | 19 070S 210E | | Tech Review | Initials | Date | | |
| | 2400 FNL 1300 FEL Lie And for oth | av | Engineering | DED | 12/29/08 | | |
| COOMII. | OINIAII | . | Geology | | | | |
| | 40.20160 LONGITUDE: -109.6049 EASTINGS: 618743 NORTHINGS: 4450 | 874 | Surface | | | | |
| Plat Bond: | ND/OR REVIEWED: : Fed[] Ind[] Sta[] Fee[] : 965003033 | LOCATION AND SITING: R649-2-3. Unit: BRENNAN BOTTOM | | | | | |
| Potas No. 1 S Water (No. 1 RDCC | Shale 190-5 (B) or 190-3 or 190-13 or Permit Review (Y/N) | R649-3-2. General Siting: 460 From Qtr/Qtr & 920' Between Well R649-3-3. Exception Drilling Unit Board Cause No: 234-1 | | | | | |
| | Surf Agreement (Y/N) nt to Commingle (Y/N) | | Eff Date: 10-18-1994 Siting: Not Susked Septem (Site) R649-3-11. Directional Drill | | | | |
| COMMENTS: _ | Meds Presito | (12- | 10-08) | | | | |
| STIPULATION | ns: <u>t. Federal</u> 2. Statemen | Appro | Basis | | | | |



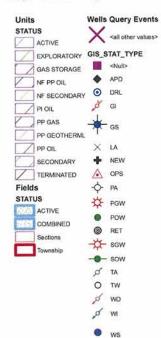
API Number: 4304730109 Well Name: BRENNAN 6

Township 07.0 S Range 21.0 E Section 19

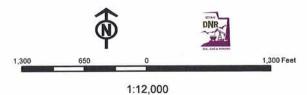
Meridian: SLBM

Operator: QUESTAR EXPLORATION & PRODUCTION CO

Map Prepared: Map Produced by Diana Mason







Application for Permit to Drill Statement of Basis

12/11/2008

Utah Division of Oil, Gas and Mining

Page 1

APD No

API WellNo

Status

Well Type OW

Surf Ownr

CBM

1210

43-047-30109-00-00

P

No

Operator

OUESTAR EXPLORATION & PRODUCTIO Surface Owner-APD

BRENNAN BOTTOM

Field

Well Name BRENNAN 6

Unit

BRENNAN BOTTOM

Type of Work

Location

NWNW 19 7S 21E S

835 FNL 594 FWL GPS Coord (UTM) 618743E 4450874N

Geologic Statement of Basis

This is a deepening of an existing well. The well currently has 333' of surface casing cemented to surface and 7,300' of production casing cemented to 2,998'. The base of the moderately saline groundwater is estimated to be at 4,700'. The in-place casing and cement should adequately protect any useable ground water in the area.

Brad Hill

12/11/2008

APD Evaluator

Date / Time

Surface Statement of Basis

The proposed re-entry of the existing Brennan #6 producing oil well is to directional drill three laterals from the existing well bore. The existing bore will be plugged below a window to be cut where the 3 laterals will leave the existing casing.

The existing pad will be re-enlarged to approximately the previous size requiring minor earth movement. The existing pad and enlarged area show no surface indicators of instability and should be an appropriate location for drilling and operating the well as proposed. No additional roads will be required.

A reserve pit 70' x 100' x 12' deep will be dug in the southwest corner of the location. Questar proposes to line the pit with a 40-mil liner.

Floyd Bartlett

12/10/2008

Onsite Evaluator

Date / Time

Conditions of Approval / Application for Permit to Drill

Category

Condition

Pits

A synthetic liner with a minimum thickness of 20 mils with a felt subliner shall be

properly installed and maintained in the reserve pit.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator

QUESTAR EXPLORATION & PRODUCTION CO

Well Name

BRENNAN 6

API Number

43-047-30109-0

APD No 1210 7S

Tw

Field/Unit BRENNAN BOTTOM

835 FNL 594 FWL

Location: 1/4,1/4 NWNW

Sec 19

Rng 21E

GPS Coord (UTM) 618751

4450877

Surface Owner

Participants

Floyd Bartlett (DOGM), Jan Nelson (Questar)

Regional/Local Setting & Topography

The proposed re-entry of the existing Brennan #6 producing oil well is to directional drill three laterals from the existing well bore. The existing bore will be plugged below a window to be cut where the 3 laterals will leave the existing casing.

The existing pad will be re-enlarged to approximately the previous size requiring minor earth movement. The existing pad and enlarged area show no surface indicators of instability and should be an appropriate location for drilling and operating the well as proposed. No additional roads will be required.

Surface Use Plan

Current Surface Use

Existing Well Pad

New Road

Miles

Well Pad

Src Const Material

Surface Formation

Width 233

Length 275

Onsite

UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetland N

Flora / Fauna

Existing pad with encroachment of rabbit brush, cheat grass and annuals

Soil Type and Characteristics

Deep sandy loam

Erosion Issues

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required N

Berm Required? N

Paleo Survey Run? N Paleo Potental Observed? N Cultural Survey Run? N Cultural Resources? N

Reserve Pit

| Site-Specific Factors | | Site I | Ranking | | |
|--------------------------------------|------------------|--------------------|---------|-------------------|-----|
| Distance to Groundwater (feet) | 75 to 100 | | 10 | | |
| Distance to Surface Water (feet) | >1000 | | 0 | | |
| Dist. Nearest Municipal Well (ft) | >5280 | | 0 | | |
| Distance to Other Wells (feet) | >1320 | | 0 | | |
| Native Soil Type | Mod permeability | | 10 | | |
| Fluid Type | Fresh Water | | 5 | | |
| Drill Cuttings | Normal Rock | | 0 | | |
| Annual Precipitation (inches) | <10 | | 0 | | |
| Affected Populations | <10 | | 0 | | |
| Presence Nearby Utility Conduits | Not Present | | 0 | | |
| | | Final Score | 25 | 1 Sensitivity Lev | /el |

Characteristics / Requirements

A reserve pit 70' x 100' x 12' deep will be dug in the southwest corner of the location. Questar proposes to line the pit with a 40-mil liner. The Green River is approximately $\frac{1}{2}$ mile south of the site.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 20 Pit Underlayment Required? Y

Other Observations / Comments

Floyd Bartlett 12/10/2008
Evaluator Date / Time

United States Department of the Interior

BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

December 5, 2008

Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2008 Plan of Development Brennan Bottom Unit, Uintah

County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following well will be reentered and completed horizontally in calendar year 2008 within the Brennan Bottom Unit, Uintah County, Utah

API#

WELL NAME

LOCATION

(Proposed PZ Green River)

43-047-30109 Brennan 6 Sec 19 T07S R21E 0835 FNL 0594 FWL

LAT #1 Sec 19 T07S R21E 2400 FNL 1300 FEL LAT #2 Sec 24 T07S R20E 2100 FNL 2500 FWL LAT #3 Sec 24 T07S R20E 1600 FSL 1700 FEL

This office has no objection to permitting the well at this time.

/s/ Michael L. Coulthard

hee:

File - Brennan Bottom

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:12-5-08



Lieutenant Governor

State of Utah DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

Division Director

December 30, 2008

Questar Exploration & Production Company 11002 E 17500 S Vernal, UT 84078

Re:

Brennan 6 Well, 835' FNL, 594' FWL, NW NW, Sec. 19, T. 7 South, R. 21 East, Bottom Location 1 – 2400' FNL, 1300' FEL, SW NE, Sec. 19, T. 7 South, R. 21 East, Bottom Location 2 – 2100' FNL, 2500' FWL, SE NW, Sec. 24, T. 7 South, R. 20 East, Bottom Location 3 – 1600' FSL, 1700' FEL, NW SE, Sec. 24, T. 7 South, R. 20 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-30109.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

Uintah County Assessor

Bureau of Land Management, Vernal Office



| Operator: | | Questar | Exploration & Production | on Company |
|---------------------------|-------|----------------|--------------------------|--------------------------|
| Well Name & Numb | er | Brennar | | |
| API Number: | | 43-047- | 30109 | |
| Lease: | | <u>UTU-75</u> | | |
| Location: | NW NW | Sec. 19_ | T. 7 South | R. 21 East |
| Bottom Location 1: | SW NE | Sec. 19 | T. <u>7 South</u> | R. 21 East |
| Bottom Location 2: | SE NW | Sec. <u>24</u> | T. 7 South | R. 20 East |
| Bottom Location 3: | NW SE | Sec. 24_ | T. <u>7 South</u> | R. <u>20 East</u> |

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

• Contact Carol Daniels at (801) 538-5284

Notify the Division prior to commencing operations to plug and abandon the well.

• Contact Dustin Doucet at (801) 538-5281 (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.
- 5. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.
- 6. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

CONFIDENTIAL

TOTS R 21 F S-19 43047 30109

SEP 2 1 2009

Questar E & P

Page 1 of 3

Operations Summary Report

DIV. OF OIL, GAS & MINING

Legal Well Name:

Contractor Name:

BRENNAN 6

Common Well Name: BRENNAN 6

RE-ENTER

10.00 HOT

10.00 BOP

12.00 LOC

12.00 OTH

12.00 LOC

12.00 OTH

6.00 LOC

10.00 BOP

8.00 BOP

1.00 BOP

0.50 RIG

3.00 TRP

2.50 RIG

1.00 OTH

5.00 TRP

0.50 REAM

0.50 OTH

1.00

0.50 RIG

2.50 **TRP**

OTH

Sub

Code

Phase

MIRU

MIRU

MIRU

MIRU

MIRU

MIRU

MIRU

MIRU

DRLPRO

DRLPRO

DRLPRO

DRLPRO

DRLPRO

DRLPRO

DRLPRO

DRLPRO

4

2

2

1

1

Code

Start:

12/2/2008

Spud Date: 7/8/1971 End:

Description of Operations

Ria Release: Rig Number: 777 Group:

Rig Name: Date

12/2/2008

12/3/2008

9/11/2009

9/12/2009

9/13/2009

9/14/2009

Event Name:

AZTEC AZTEC

Hours

From - To

06:00 - 16:00

06:00 - 16:00

06:00 - 18:00

18:00 - 06:00

06:00 - 18:00

18:00 - 06:00

06:00 - 12:00

12:00 - 22:00

22:00 - 06:00

06:00 - 07:00

07:00 - 07:30

07:30 - 08:30

08:30 - 11:30

11:30 - 14:00

14:00 - 15:00

15:00 - 20:00

20:00 - 20:30

20:30 - 23:00

23:00 - 23:30

23:30 - 00:00

18:00 -

Drilling Prep On 12-2-2008 7:00 AM MIRU hotoiler pumped 100 bbls chemical water down casing, unseat pump, flush tubing with 50 bbls chemical water. POOH with rods. SDFN 5:00 PM.

24 Hour Forecast: Finish POOH with rods and pump, POOH with tubing run, casing scraper.

Casing size: 5 1/2" 17# K-55 Casing Depth: 7300'

Drilling Prep

On 12-3-2008 7:00 AM Finish POOH and lay down rods and pump. ND WH, NU BOPs, release TAC, change over to tubing equipment. POOH with tubing, TAC and mud anchor. SDFN 5:00 PM.

24 Hour Forecast:Run casing scraper.

Casing size: 5 1/2" 17# K-55

Casing Depth: 7300'

LOAD OUT RIG AND MOBALIZE FROM FARMINGTON NW TO BRENNAN 6 LOCATION, RECIEVED 5 LOADS, PINNED DERRICK TO CARRIER, RECIEVED 2 7/8 DRILL STRING / 285 JOINTS OF 2 7/8 AOH DP AND 75 JOINTS OF SLH-90 HWDP

WAIT ON DAYLIGHT

NOTIFIED DUSTIN DOUCET WITH UT STATE VERBALLY AND UT BLM VIA E-MAIL OF BOP TEST ON SATURDAY 9-12-2009 AT 13:00

RIG UP SUB, RAMP, AND BACK CARRIER ON. SET WATER TANK AND DOG HOUSE. RAISE DERRICK, RIG UP FLOOR AND START HANGING TOP DRIVE.

HAD TO SHUT TRCKS DOWN ON RIG UP DUE TO MUD TANK BEING HELD UP AT COLO. PORT FOR 8 HRS.

WAIT ON DAYLIGHT

FINISHED SETTING RIG IN PLACE, FINISH GENERAL RIG UP AND

READY TOPDRIVE

NIPPLE UP BOPE

TEST BOP, CASING TO 300 PSI,2 FLOOR VALVES, DART VALVE. TOP DRIVE BALL VALVE, BLIND AND PIPE RAMS AN CHOKE MANIFLOD 3000 PSI HIGH, 250 LOW, ANNNULAR 1500 HIGH, 250

LOW- FUNTION TEST ACCULATOR.

DONNA KENNY FOR BLM WITNESSED BOP TEST

TEST BOP

RIG SERVICE

SET WEAR BUSHING

DRLPRO DRLPRO STRAP AND PICK UPBIT #, CASING SCRAPER, BIT SUB AND BHA **DRLPRO**

REPAIR BROKEN HYDRAULIC HOSE ON CARRIER. HOLD SAFETY MEETING AND RIG UP WEATHERFORD LAY DOWN

TRUCK

CONTINUE TO P/U BHA AND DRILL PIPE TO 3600'

RIG SERVICE

P/U DRILL PIPE FROM 3600' TO 6108' WASH 78' FROM 6108' TO 6155', TAG CIBP AT 6155'

RIG DOWN LAY DOWN TRUCK

Printed: 9/21/2009 12:46:17 PM

Questar E & P

Operations Summary Report

Legal Well Name: BRENNAN 6
Common Well Name: BRENNAN 6

12/2/2008

Spud Date: 7/8/1971

Event Name: Contractor Name: RE-ENTER

Start: Rig Release: End:

Rig Name:

AZTEC

Group:

AZTEC Rig Number: 777

| Rig Name: | F | AZTEC | | Rig Number: /// | | | |
|-----------|---------------|-------|------|-----------------|---------|---|--|
| Date | From - To | Hours | Code | Sub Code | Phase | Description of Operations | |
| 9/14/2009 | 00:00 - 02:30 | 2.50 | CIRC | 1 | DRLPRO | RIG UP HOT OILER AND CIRCULATE HOT WATER AT 275 DEGREES TO CLEAN OUT CASING, R/D HOT OILER, CIRCULATE | |
| | 02:30 - 03:00 | 0.50 | TRP | 1 | DRLPRO | TO COOL FLUID FOR TRIP TRIP OUT OF THE HOLE TO PICK UP WHIPSTOCK | |
| | 03:00 - 04:00 | | RIG | 1 | DRLPRO | WORK ON TOPDRIVE SERVICE LOOP | |
| | 04:00 - 06:00 | 1 | TRP | 1 | DRLPRO | TRIP OUT OF THE HOLE TO PICK UP WHIPSTOCK | |
| 9/15/2009 | 06:00 - 08:00 | | TRP | 2 | DRLPRO | TRIP OUT OF HOLE FOR WHIPSTOCK | |
| 9/13/2009 | 08:00 - 08:30 | | RIG | 1 | DRLPRO | RIG SERVICE | |
| | 08:30 - 09:30 | | TRP | 1 | DRLPRO | PICK UP WHIPSTOCK AND ORIENT TOOLS | |
| | 09:30 - 13:00 | | TRP | 2 | DRLPRO | TRIP IN HOLE WITH WHIPSTOCK | |
| | 13:00 - 14:00 | | LOG | 4 | DRLPRO | HOLD SAFETY MEETING, RIG UP WIRELINE TRUCK AND GYRO | |
| | 13.00 - 14.00 | 1.00 | LOG | 1 | DILLINO | TOOL. | |
| | 14:00 - 14:30 | 0.50 | LOG | 4 | DRLPRO | SEAT GYRO TOOL, ORIENT AND SET WHIPSTOCK @ 217.73 GTF, 6143.46' TO TOP OF WHIPSTOCK | |
| | 14:30 - 16:00 | 1.50 | LOG | 4 | DRLPRO | PULL GYRO TOOL, RIG DOWN WIRELINE TRUCK AND SHEAR FORM WHIPSTOCK | |
| 1 | 16:00 - 21:00 | 5.00 | DRL | 7 | DRLPRO | MILLING WINDOW F/6143 T/6153, 4' OF RAT HOLE | |
| 1 | 21:00 - 22:00 | 1.00 | CIRC | 1 | DRLPRO | PUMP HI-VIS SWEEP | |
| | 22:00 - 01:30 | 3.50 | TRP | 10 | DRLPRO | PUMP SLUG AND T.O.O.H. FOR DIRECTIONAL TOOLS TO 777' | |
| | 01:30 - 05:00 | | RIG | 2 | DRLPRO | REPAIR TOP DRIVE ELEVATOR LINK | |
| | 05:00 - 06:00 | 1.00 | TRP | 10 | DRLPRO | TRIP OUT OF HOLE FOR DIRECTIONAL TOOLS | |
| 9/16/2009 | 06:00 - 07:00 | | TRP | 1 | DRLPRO | LAY DOWN MILLS | |
| İ | 07:00 - 08:00 | | RIG | 1 | DRLPRO | RIG SERVICE | |
| | 08:00 - 10:30 | | RIG | 1 | DRLPRO | WORK ON TOP DRIVE LINK TILT | |
| | 10:30 - 12:30 | 2.00 | TRP | 1 | DRLPRO | P/U DIRECTIONAL TOOLS AND ORIENT | |
| | 12:30 - 16:00 | | TRP | 1 | DRLPRO | TRIP IN THE HOLE AND TAG AT 6153' | |
| 4 | 16:00 - 20:30 | 4.50 | TRP | 1 | DRLPRO | MAKE UP SIDE ENTRY SUB, RIG UP WIRELINE TRUCK AND GYRO, RUN IN THE HOLE AND ORIENT GYRO TOOL | |
| İ | 20:30 - 23:00 | 2.50 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL FROM 6153' TO 6181' 28 FT ROP 11.2'/HR GPM 100 100% SLIDE | |
| | 23:00 - 00:30 | 1.50 | ОТН | | DRLPRO | POOH WITH GYRO TOOL, MAKE CONNECTION, RUN GYRO BACK IN THE HOLE AND RE-ORIENT | |
| 1 | 00:30 - 03:30 | 3.00 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL FROM 6181' TO 6213 32 FT ROP 10.6'/HR GPM 100 100% SLIDE | |
| | 03:30 - 05:00 | 1.50 | ОТН | | DRLPRO | POOH WITH GYRO TOOL, MAKE CONNECTION, RUN GYRO BACK IN THE HOLE AND RE-ORIENT | |
| | 05:00 - 06:00 | 1.00 | DRL | 3 | DRLPRO | DIRECTIONAL DRILL FROM 6213' TO 6224' 11' 11'/HR SAME PARAMETERS | |
| 9/17/2009 | 06:00 - 08:00 | | DRL | 2 | DRLPRO | DIRECTIONAL DRILL F/6224 T/6244 | |
| 1 | 08:00 - 09:00 | | OTH | | DRLPRO | PULL GRYO OUT OF HOLE, LAY DOWN SIDE ENTRY SUB | |
| | 09:00 - 12:00 | 3.00 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL F/6244 T/6307 63' ROP 21 FT/HR WOB 14 | |
| | 12:00 - 12:30 | | RIG | 1 | 1 | LUBRICATE RIG | |
| | 12:30 - 02:30 | 14.00 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL F/6307' T/6498' 191' ROP 13.6 FT/HR WOB 16 | |
| | | | | | | NEW TARGET TVD CHANGED TO 6538 AS OF 15:00 HRS AS PER ON SITE GEOLOGIST/DENVER | |
| | 02:30 - 06:00 | | TRP | 10 | DRLPRO | PUMP SLUG AND T.O.O.H. | |
| 9/18/2009 | 06:00 - 09:30 | | TRP | 10 | DRLPRO | TRIP OUT OF HOLE FOR BIT | |
| | 09:30 - 11:00 | | TRP | 1 | DRLPRO | CHANGE OUT MOTOR AND BIT, ORIENT AND TEST TOOLS, P/U JARS | |
| | 11:00 - 17:30 | | TRP | 10 | DRLPRO | TRIP IN HOLE WITH BIT #4 | |
| | 17:30 - 06:00 | 12.50 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL FROM 6498' TO 6642' 144' | |
| ·L | | L | l | L | L | <u> </u> | |

Printed: 9/21/2009 12:46:17 PM

Operations Summary Report

Legal Well Name: BRENNAN 6 Common Well Name: BRENNAN 6

12/2/2008

Spud Date: 7/8/1971

Event Name: Contractor Name: **RE-ENTER**

Start: Rig Release: End:

AZTEC

Group:

Rig Name:

AZTEC

Rig Number: 777

| Date | From - To | Hours | Code | Sub | Phase | Description of Consections |
|-----------|--------------------------------|-------|-------|------|-----------|--|
| Date | 110111 - 10 | | | Code | rnase | Description of Operations |
| 9/18/2009 | 17:30 - 06:00 | 12.50 | DRL | 2 | DRLPRO | ROP 11.5 FT/HR WOB 12/15 |
| 9/19/2009 | 06:00 - 12:30 | 6.50 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL FROM 6642' TO 6711' 69' |
| | | | | 1. | | ROP 10.6 FT/HR WOB 14/20 RPM 257(SLIDE) 297(ROTATE) |
| | 12:30 - 13:00 | 1 | RIG | 1 | DRLPRO | RIG SERVICE |
| | 13:00 - 00:00 | 11.00 | DRL | 2 | DRLPRO | DIRECTIONAL DRILL FROM 6711' TO 6874' 163' |
| | 00:00 - 01:00 | 1.00 | CIRC | 1 | DRLPRO | ROP 14.8 FT/HR WOB 12/22 RPM 257(SLIDE) 297 (ROTATE) CIRCULATE UP SAMPLE, PUMP TRIP SLUG |
| | 01:00 - 06:00 | | TRP | 10 | DRLPRO | T.O.O.H. FOR BIT#5 |
| 9/20/2009 | 06:00 - 07:00 | | TRP | 1 | DRLPRO | CHANGE OUT BIT AND MOTOR, ORIENT TOOLS |
| | 07:00 - 08:30 | | TRP | 2 | DRLPRO | TRIP IN HOLE WITH BIT #5 |
| | 08:30 - 14:30 | 1 | RIG | 2 | DRLPRO | RIG REPAIR-WORK ON RIGHT ANGLE DRIVE COOLING PROBLEM |
| | | | |] | | FOR DRAWORKS AND TOP DRIVE. |
| | 14:30 - 19:00 | | TRP | 10 | DRLPRO | TRIP IN HOLE WITH BIT #5- TIGHT @ 6543' |
| | 19:00 - 19:30 | | REAM | 1 | DRLPRO | WASH 25' TO BOTTOM |
| | 19:30 - 06:00 | 10.50 | DRL | 1 | DRLPRO | DRILLING F/6874' T/6948' 74' |
| 0/04/0000 | 00.00 00.00 | 0.50 | DD! | | DDI BBG | ROP 7.0 FT/HR WOB 4/15 RPM 205(SLIDE) 245(ROTATE) |
| 9/21/2009 | 06:00 - 09:30 | | DRL | 2 | DRLPRO | DIRECTIONAL DRILLING F/6948 T/6964 |
| | 09:30 - 10:30 10:30 - 15:00 | | CIRC | 1 2 | DRLPRO | PUMP HIGH VIS SWEEP AND CICULATE OUT OF HOLE TRIP OUT OF HOLE FOR NEW BHA, LAY DOWN 8 JOINTS OF DRILL |
| | 10.30 - 13.00 | 4.50 | INP | 2 | DKLPKO | PIPE |
| | 15:00 - 16:00 | 1.00 | TRP | 1 | DRLPRO | CHANGE OUT MOTOR AND BIT AND ORIENT |
| | 16:00 - 22:30 | 1 | TRP | 2 | DRLPRO | TRIP IN THE HOLE TO 6715' |
| | 22:30 - 23:30 | j . | DRL | 3 | DRLPRO | ORIENT DIRECTIONAL TOOLS AND ESTABLISH A TROUGH FROM |
| | | | | | | 6711' TO 6722' |
| | 23:30 - 02:30 | 3.00 | DRL | 7 | DRLPRO | SIDE TRACK WELL AND TIME DRILL FROM 6722' TO 6732' 10' |
| | 02:30 - 06:00 | 3.50 | DRL | 2 | DRLPRO | ROP 3.3 FT/HR WOB 0-1 DIRECTIONAL DRILL F/6732' T/6755' 23' |
| | 52.00 - 00.00 | 3.50 | J. \L | 1 | DIVEL IVO | ROP 6.6 FT/HR WOB 15/20 RPM 257 (SLIDE) |
| | | | | | | The state of the s |
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| | STATE OF UTAH | | FORM 9 | | | | | | |
|---|--|--------------------------------|--|--|--|--|--|--|--|
| | DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MI | | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTSL-065429 | | | | | | |
| SUNDI | RY NOTICES AND REPORTS | ON WELLS | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | | | | | |
| | sals to drill new wells, significantly deeper ugged wells, or to drill horizontal laterals. | | 7.UNIT or CA AGREEMENT NAME: BRENNAN BOTTOM | | | | | | |
| 1. TYPE OF WELL Oil Well | | | 8. WELL NAME and NUMBER: BRENNAN 6 | | | | | | |
| 2. NAME OF OPERATOR: QUESTAR EXPLORATION & PR | ODUCTION CO | | 9. API NUMBER: 43047301090000 | | | | | | |
| 3. ADDRESS OF OPERATOR: 11002 East 17500 South , Ve | 9. FIELD and POOL or WILDCAT: BRENNAN BOTTOM | | | | | | | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0835 FNL 0594 FWL QTR/QTR, SECTION, TOWNSH: Qtr/Qtr: NWNW Section: 1 | COUNTY: UINTAH STATE: UTAH | | | | | | | | |
| L 11. CHE | CK APPROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPORT, | OR OTHER DATA | | | | | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | | | | | |
| | ACIDIZE | ALTER CASING | CASING REPAIR | | | | | | |
| □ NOTICE OF INTENT | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME | | | | | | |
| Approximate date work will start: | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | | | | | |
| ✓ SUBSEQUENT REPORT | DEEPEN | FRACTURE TREAT | New construction | | | | | | |
| Date of Work Completion: 10/7/2009 | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK | | | | | | |
| | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION | | | | | | |
| SPUD REPORT Date of Spud: | _ | | | | | | | | |
| | REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | ☐ TEMPORARY ABANDON | | | | | | |
| DRILLING REPORT | │ | ☐ VENT OR FLARE ☐ | ☐ WATER DISPOSAL | | | | | | |
| Report Date: | WATER SHUTOFF | SI TA STATUS EXTENSION | ☐ APD EXTENSION | | | | | | |
| | WILDCAT WELL DETERMINATION | ✓ OTHER | OTHER: | | | | | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. This sundry is being submitted to inform you that Questar Exploration Production Company only drilled lateral 3 and has no plans to drill the other Accepted by the two laterals. Utah Division of Oil, Gas and Mining FOR RECORD ONLY | | | | | | | | | |
| NAME (PLEASE PRINT) Jan Nelson | PHONE NUMBER 435 781-4331 | R TITLE Permit Agent | | | | | | | |
| SIGNATURE N/A | | DATE 10/12/2009 | | | | | | | |
| | | | | | | | | | |

Form 3160-4 (August 2007)

*(See instructions and spaces for additional data on page 2)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

| | WELL COMPLETION OR RECOMPLETION REPORT AND LOG | | | | | | | | | | 5. Le | ease Sei | ial No. | | | | | | |
|----------------------------|--|-----------------|----------------|----------------------|------------------------------------|---------------------------------------|------------|-------------------|----------------------|-----------|-------------------|----------|--|-------------|--------------|--------------|---------------------------------------|-----------------|--|
| la. Type of b. Type of | | | v Well | - | Gas Well Work Over - Horizor | Deepen | | Other Ing Back | ☐ Diff | f. Resvr. | • | | | N/A | Indian, | Allottee or | nt Marri | ame and Nb. | = - |
| 2. Name of Questar E | Operator xploration | & Produ | ction (| Co. | | | | * | | | | | | 8. Le | Ise Va | heand Well | Na. | | 3 |
| 3. Address | | | | | UT 84078 | | | | . Phone l | | | | | 9. X | PI Well | | | | _ |
| 4. Location | of Well (R | eport loca | tion cle | early an | d in accord | dance with Fede | ral 1 | | | 10 12 1 | Dann | | | 10. I | ield an | d Pool or Ex | | ry | |
| At surfac | | L, 594' F | WL, L | OT 1, | SEC 19- | T7S-R21E | | | | | | | | 11. 5 | Sec., T., | R., M., on E | Block at | nd R21E | — |
| At top pro | od. interval i | reported b | wole | | • | WL, LOT 1, S | SEC | 19-T7S- | R21E | | | | | L | | or Parish | | 3. State | |
| • • | 125 | za ce | i 11 | ø29 t . Lo | Fe T 13. SE | C 24-T7S-R2 | DΕ | ~ <i>~</i> ~ i | Mole | 160.41 | • | 1 | | UIN | • | | U | | |
| At total de 14. Date Sp | | | | | .D. Reache | | | 16. I | Date Comp D & A | pleted 1 | | 2009 | | 17. I | | ns (DF, RK | B, RT, | GL)* | |
| 18. Total D | | | 3' | | 19. Pl | ug Back T.D.: | | CIBP | | | | | idge Plug S | Set: | MD C | CIBP 6153' | | | |
| 21. Type E | lectric & Otl | | | - | • | py of each) | TV L H | | 100 | | N N | as DS7 | | Z N | ∘ □ | Yes (Submi | t report) | • | |
| 23. Casing | and Liner F | Record (R | eport a | ll string | s set in we | 11) | | | | | D | irection | al Survey? | N | 9 Z 1 | Yes (Submi | t copy) | | |
| Hole Size | Size/Gr | ade W | t. (#/ft.) | T | op (MD) | Bottom (M | D) | Stage Co De | | | of Sks. of Cen | | Slurry V (BBL | | Cem | ent Top* | 4 | Amount Pulled | |
| | <u> </u> | | | + | | | | | | | | \dashv | | | | | | · · · · · · | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | + | | | | | | | | | | | | | | | |
| 24. Tubing | | | | | | | | | | | D 4 0 | <u> </u> | | | | 10:00 | | | |
| Size 2-7/8" | 6101' | Set (MD) | Pac | ker Dept | h (MD) | Size | \dashv | Depth Se | t (MD) | Packer | Depth (| MD) | Size | | Dept | h Set (MD) | <u>P</u> | acker Depth (MI | <u>)) </u> |
| 25. Produci | ng Intervals Formation | | | т | ор | Bottom | \dashv | | rforation I | | | | ize | No. H | oles | | Porf | Status | |
| A) GREEN | | | 1 | 5143' | ОР | 6153' | | PERF S | | | R | 3-1/2 | | 140. 11 | OICS | OPEN | 1011. | Status | |
| B) | | | | | | · · · · · · · · · · · · · · · · · · · | | 6114' - 1 | 0,080 | | | | | | | ě | | | |
| C) D) | | | + | - | - | | | | | | | | | | | | | | |
| 27. Acid, F | racture, Tre | atment, Ce | ment S | queeze, | etc. | · | | | | | 1 | | | | | | | | _ |
| 6143' - 61 | Depth Inter | val | | CIDIZ | E W/ 3/ | 500 GALS OF | 15 | % HCI | | Amount a | and Typ | e of M | aterial | | | | | | |
| 0140 - 01 | | | - | OIDIZ | L *** 0-1, | OU OFALO CI | | 70 TIOL | | | | | | | · | | | | |
| | | | | | | | | | | | | | | | | | | | |
| 28. Product | ion - Interv | al A | | | | | | | | | | | | | | · | · · · · · · · · · · · · · · · · · · · | | |
| Date First | Test Date | Hours | Test | | Oil | Gas | Wa | | Oil Grav | • | Gas | | | ction M | ethod | | | | |
| Produced 10/24/09 | 10/27/09 | Tested | Prod | uction | BBL 203 | MCF | BB1 | | Corr. AF | 4 | Gra | vity | PUM | IPING | | | | | |
| Choke | Tbg. Press. | Csg. | 24 H | r. | Oil | 86 Gas | Wat | | Gas/Oil | | Wel | 1 Statu | <u>. </u> | | | | | | |
| Size N/A | Flwg. SI 150# | Press. | Rate | • | BBL | MCF | BBI | Ĺ | Ratio | | PR | ODU | CING | | | | | | |
| 28a. Produc | L | L | _L, | | <u> </u> | | 1 | | | | | | | | | | | | |
| Date First Produced | Test Date | Hours Tested | Test Produ | ection | Oil BBL | Gas MCF | Wat BBI | | Oil Grav Corr. AP | | Gas Gra | | Produc | ction Me | ethod | | | | |
| | Tbg. Press. Flwg. | Csg. Press. | 24 H | | Oil BBL | Gas MCF | Wat BBI | | Gas/Oil Ratio | | Wel | 1 Statu: | s | | - | | | | |
| | SI | | _ | > | | | | | | | | ^^ | ME | ne. | | | | :EIVEL |) |

| 28h Prod | uction - Inte | rval C | | | | | | | | | |
|-------------------|--|-----------------|---------------------------------|--------------|---------------|--------------------------------------|------------------------------------|----------------|---------|---|----------------------------|
| | | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | , | Production Method | |
| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio | Well St | latus | | |
| 28c. Prod | uction - Inte | rval D | | <u> </u> | | | | | | | |
| | | Hours Tested | Test Production | Oil BBL | Gas MCF | Water BBL | Oil Gravity Corr. API | Gas Gravity | 7 | Production Method | |
| Choke Size | Tbg. Press. Flwg. SI | Csg. Press. | 24 Hr. Rate | Oil BBL | Gas MCF | Water BBL | Gas/Oil Ratio | Well S | tatus | | |
| 29. Dispo SOLD | sition of Ga | s (Solid, us | sed for fuel, ve | ented, etc.) | | | | | | | |
| Show | all importan | t zones of | (Include Aqui porosity and c | ontents the | reof: Cored i | ntervals and all ng and shut-in p | drill-stem tests, pressures and | 1 | | on (Log) Markers IVER G-1 LIME HORIZONTA | AL. |
| For | mation | Тор | Bottom | | Desc | riptions, Conte | nts, etc. | | | Name | Тор |
| | | | | | | * | | | | | Meas. Depth |
| 32. Addit | tional remari | ks (include | plugging pro | cedure): | | | | | | | |
| | | | | | | | | | | | |
| 33. Indica | 33. Indicate which items have been attached by placing a check in the appropriate boxes: | | | | | | | | | | |
| | ☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☑ Directional Survey ☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other: | | | | | | | | | | |
| N | - | | egoing and atta | | | plete and corre | | PLETION SL | | ecords (see attached instructions)* VISOR | |
| | | on 1001 and | d Title 43 II S | .C. Section | 1212. make i | t a crime for an | | | ılly to | make to any department or agency | y of the United States any |
| false, ficti | itle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any also, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. | | | | | | | | | | |

(Continued on page 3)



Drilling Services

COMPLETION



QUESTAR EXPLORATION AND PRODUCTION

BRENNAN#6

UINTAH COUNTY, UT

PLAN 1

OCTOBER 6, 2009

RECEIVED

JAN 2.6 2010

DIV. OF OIL, GAS & MINING

Weatherford International Ltd.

2000 Oil Drive Casper, Wyoming 82604 +1.307.265.1413 Main +1.307.235.3958 Fax www.weatherford.com



Project: UINTAH COUNTY, UTAH Site: BRENNAN #6

Well: BRENNAN #6

Wellbore: BRENNAN #6 Design: BRENNAN #6 Latitude: 40° 12' 6.120 N Longitude: 109° 36' 19.820 W

GL: 4678.00

KB: WELL @ 4692.40ft (Original Well Elev)



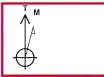
Weatherford^{*}



| | | | Ground Lev | el: 4678.00 | | | |
|---------------|---------------|------------------------|-----------------------|------------------------------|--------------------------------|------|--|
| +N/-S 0.00 | +E/-W 0.00 | Northing 7247798.66 | Easting 2169536.68 | Latittude 40° 12' 6.120 N | Longitude 109° 36' 19.820 W | Slot | |

| | SECTION DETAILS | | | | | | | | | |
|--|-----------------|---|---|--|--|---------------------------------------|--|------------------|---|--|
| MD 6100.00 6152.10 6797.88 9999.47 | 2.25 91.00 | Azi 157.46 157.46 218.00 218.00 | TVD 6096.58 6148.64 6552.00 6496.12 | +N/-S -176.20 -178.09 -516.68 -3039.18 | +E/-W 0.95 1.74 -244.98 -2215.77 | DLeg 0.00 0.00 13.92 0.00 | TFace 0.00 0.00 60.52 0.00 | 141.81 142.88 | Annotation Start 52.10 hold at 6100.00 MD Start DLS 13.92 TFO 60.52 Start 3254.84 hold at 6797.88 MD | |



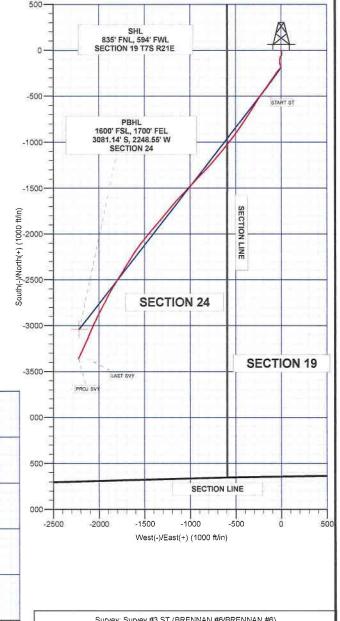


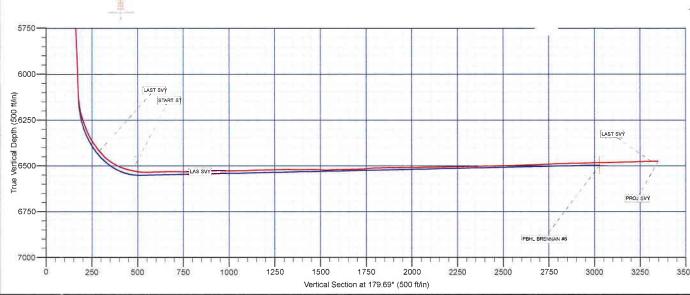
Azimuths to True North Magnetic North: 11,41*

Strength: 52613.5snT Dip Angle: 66.08" Date: 9/1/2009 Model: BGGM2009



DIV. OF OIL, GAS & MINING





Survey: Survey #3 ST (BRENNAN #6/BRENNAN #6)

Created By: TRACY WILLIAMS Date: 8:29, October 06 2009



QUESTAR EXPLORATION AND PRODUCTION

UINTAH COUNTY, UTAH BRENNAN #6 BRENNAN #6

BRENNAN #6

Survey: Survey #3 ST

Standard Survey Report

06 October, 2009

RECEIVED

JAN 2 6 2010

DIV. OF OIL, GAS & MINING



QUEST²R

Weatherford International Ltd.

Survey Report



Company:

QUESTAR EXPLORATION AND PRODUCTION

Project:

UINTAH COUNTY, UTAH

Site:

BRENNAN #6

Well:

BRENNAN #6 BRENNAN #6

Wellbore: Design:

BRENNAN #6

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database:

Well BRENNAN #6

WELL @ 4692.40ft (Original Well Elev) WELL @ 4692.40ft (Original Well Elev)

Minimum Curvature

EDM 2003.21 Single User Db

Project

UINTAH COUNTY, UTAH

Map System: Geo Datum: Map Zone:

US State Plane 1983

North American Datum 1983 **Utah Central Zone**

System Datum:

Mean Sea Level

RECEIVED

JAN 2 6 2010

DIV. OF OIL, GAS & MINING

Site

BRENNAN #6

Northing:

7,247,798.66 ft

Latitude:

40° 12' 6.120 N

Site Position: From: **Position Uncertainty:**

Lat/Long 0.00 ft Easting: Slot Radius: 2,169,536.68ft

Longitude: **Grid Convergence:** 109° 36' 19.820 W

1.21°

Well

BRENNAN #6

Well Position

+N/-S +E/-W 0.00 ft 0.00 ft

Northing: Easting:

7,247,798.66 ft 2.169,536,68 ft Latitude: Longitude:

40° 12' 6.120 N 109° 36' 19.820 W

Position Uncertainty

0.00 ft

Wellhead Elevation:

ft

Ground Level:

66.08

4,678.00 ft

52.613

Wellbore

BRENNAN #6

Magnetics

Model Name

Sample Date

9/1/2009

Declination (°)

11.41

Dip Angle (°)

Field Strength (nT)

BGGM2009

BRENNAN #6

Audit Notes:

Design

Version: 1.0 Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD) (ft)

+N/-S (ft) 0.00

+E/-W (ft) 0.00

Direction (°)

179.69

0.00

Survey Program From

To (ft)

Date 10/6/2009 Survey (Wellbore)

Tool Name

Description

6,100.00 Survey #1 (BRENNAN #6) 100.00 6,711.00 Survey #2 (BRENNAN #6) 6,176.00

NS-GYRO-MS MWD

North sensing gyrocompassing m/s MWD - Standard

6,744.00 7,090.00 Survey #3 (BRENNAN #6) MWD

MWD - Standard

Survey

| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| START ST | | | | | | | | | |
| 6,711.00 | 80.25 | 216.89 | 6,525.73 | -470.90 | -210.93 | 469.75 | 0.00 | 0.00 | 0.00 |
| 6,744.00 | 82.79 | 213.60 | 6,530.60 | -497.55 | -229.75 | 496.30 | 12.51 | 7.70 | -9.97 |
| 6,775.00 | 84.49 | 213.51 | 6,534.03 | -523.23 | -246.78 | 521.88 | 5.49 | 5.48 | -0.29 |
| 6,807.00 | 90.69 | 212.54 | 6,535.38 | -550.02 | -264.20 | 548.58 | 19.61 | 19.38 | -3.03 |
| 6,838.00 | 93.19 | 211.66 | 6,534.33 | -576.26 | -280.66 | 574.73 | 8.55 | 8.06 | -2.84 |
| 6,870.00 | 90.69 | 212.41 | 6,533.24 | -603.37 | -297.62 | 601.75 | 8.16 | -7.81 | 2.34 |
| 6,900.00 | 91.13 | 212.54 | 6,532.77 | -628.68 | -313.73 | 626.97 | 1.53 | 1.47 | 0.43 |
| 6,932.00 | 91.71 | 211.57 | 6,531.97 | -655.79 | -330.71 | 653.99 | 3.53 | 1.81 | -3.03 |
| 6,963.00 | 90.69 | 211.91 | 6,531.32 | -682.15 | -347.01 | 680.26 | 3.47 | -3.29 | 1.10 |
| 6,995.00 | 89.06 | 213.04 | 6,531.39 | -709.14 | -364.19 | 707.16 | 6.20 | -5.09 | 3.53 |



Weatherford International Ltd.

Survey Report



Company:

QUESTAR EXPLORATION AND PRODUCTION Local Co-ordinate Reference:

Project:

UINTAH COUNTY, UTAH

Site:

BRENNAN #6 **BRENNAN #6**

Well: Wellbore: Design:

BRENNAN #6 BRENNAN #6

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well BRENNAN #6

WELL @ 4692.40ft (Original Well Elev) WELL @ 4692.40ft (Original Well Elev)

Minimum Curvature

EDM 2003.21 Single User Db

Survey

| Measured Depth (ft) | inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| 7,027.00 | 89.00 | 213.54 | 6,531.94 | -735.89 | -381.75 | 733.81 | 1.57 | -0.19 | 1.56 |
| 7,058.00 | 89.13 | 213.54 | 6,532.44 | -761.72 | -398.88 | 759.55 | 0.42 | 0.42 | 0.00 |
| 7,090.00 | 91.90 | 214.63 | 6,532.15 | -788.22 | -416.81 | 785.95 | 9.30 | 8.66 | 3.41 |
| 7,121.00 | 93.44 | 214.79 | 6,530.71 | -813.68 | -434.44 | 811.31 | 4.99 | 4.97 | 0.52 |
| 7,143.00 | 93.44 | 214.80 | 6,529.39 | -831.71 | -446.97 | 829.28 | 0.05 | 0.00 | 0.05 |
| 7,174.00 | 92.39 | 214.57 | 6,527.81 | -857.17 | -464.59 | 854.64 | 3.47 | -3.39 | -0.74 |
| 7,206.00 | 91.13 | 216.04 | 6,526.83 | -883.27 | -483.08 | 880.64 | 6.05 | -3.94 | 4.59 |
| 7,238.00 | 90.75 | 215.91 | 6,526.31 | -909.16 | -501.87 | 906.43 | 1.26 | -1.19 | -0.41 |
| 7,269.00 | 89.25 | 217.66 | 6,526.31 | -933.99 | -520.43 | 931.16 | 7.44 | -4.84 | 5.65 |
| 7,301.00 | 88.69 | 217.66 | 6,526.88 | -959.32 | -539.98 | 956.38 | 1.75 | -1.75 | 0.00 |
| 7,332.00 | 89.38 | 218.16 | 6,527.40 | -983.77 | -559.03 | 980.73 | 2.75 | 2.23 | 1.61 |
| 7,364.00 | 90.88 | 217.91 | 6,527.33 | -1,008.97 | -578.74 | 1,005.83 | 4.75 | 4.69 | -0.78 |
| 7,395.00 | 91.25 | 218.41 | 6,526.75 | -1,033.34 | -597.89 | 1,030.09 | 2.01 | 1.19 | 1.61 |
| 7,427.00 | 90.63 | 218.79 | 6,526.23 | -1,058.35 | -617.85 | 1,054.99 | 2.27 | -1.9 4 | 1.19 |
| 7,458.00 | 91.13 | 220.66 | 6,525.75 | -1,082.19 | -637.66 | 1,078.72 | 6.24 | 1.61 | 6.03 |
| 7,490.00 | 91.56 | 220.16 | 6,525.00 | -1,106.55 | -658.40 | 1,102.97 | 2.06 | 1.34 | -1.56 |
| 7,522.00 | 91.54 | 220.47 | 6,524.14 | -1,130.94 | -679.10 | 1,127.25 | 0.97 | -0.06 | 0.97 |
| 7,553.00 | 91.50 | 220.16 | 6,523.31 | -1,154.57 | -699.15 | 1,150.77 | 1.01 | -0.13 | -1.00 |
| 7,585.00 | 91.69 | 220.29 | 6,522.42 | -1,178.99 | -719.80 | 1,175.08 | 0.72 | 0.59 | 0.41 |
| 7,616.00 | 90.63 | 221.54 | 6,521.80 | -1,202.41 | -740.10 | 1,198.39 | 5.29 | -3.42 | 4.03 |
| 7,648.00 | 90.94 | 220.91 | 6,521.36 | -1,226.48 | -761.19 | 1,222.34 | 2.19 | 0.97 | -1.97 |
| 7,680.00 | 90.75 | 222.41 | 6,520.89 | -1,250.38 | -782.46 | 1,246.13 | 4.72 | -0.59 | 4.69 |
| 7,711.00 | 91.30 | 223.51 | 6,520.33 | -1,273.06 | -803.58 | 1,268.69 | 3.97 | 1.77 | 3.55 |
| 7,743.00 | 91.19 | 223.79 | 6,519.64 | -1,296.21 | -825.66 | 1,291.72 | 0.94 | -0.34 | 0.88 |
| 7,774.00 | 90.44 | 224.41 | 6,519.20 | -1,318.47 | -847.23 | 1,313.86 | 3.14 | -2.42 | 2.00 |
| 7,806.00 | 87.94 | 224.16 | 6,519.65 | -1,341.38 | -869.57 | 1,336.65 | 7.85 | -7.81 | -0.78 |
| 7,837.00 | 88.88 | 223.66 | 6,520.51 | -1,363.70 | -891.06 | 1,358.86 | 3.43 | 3.03 | -1.61 |
| 7,869.00 | 89.50 | 223.00 | 6,520.96 | -1,386.97 | -913.02 | 1,382.01 | 2.83 | 1.94 | -2.06 |
| 7,901.00 | 90.75 | 223.29 | 6,520.89 | -1,410.32 | -934.90 | 1,405.24 | 4.01 | 3.91 | 0.91 |
| 7,932.00 | 92.06 | 221.79 | 6,520.13 | -1,433.16 | -955.85 | 1,427.96 | 6.42 | 4.23 | -4.84 |
| 7,964.00 | 89.59 | 222.61 | 6,519.67 | -1,456.86 | -977.34 | 1,451.54 | 8.13 | -7.72 | 2.56 |
| 7,995.00 | 88.25 | 224.04 | 6,520.25 | -1,479.40 | -998.61 | 1,473.97 | 6.32 | -4.32 | 4.61 |
| 8,027.00 | 88.06 | 223.66 | 6,521.28 | -1,502.47 | -1,020.77 | 1,496.92 | 1.33 | -0.59 | -1.19 |
| 8,058.00 | 89.56 | 222.90 | 6,521.93 | -1,525.03 | -1,042.01 | 1,519.37 | 5.42 | 4.84 | -2.45 |
| 8,090.00 | 90.00 | 223.91 | 6,522.05 | -1,548.28 | -1,064.00 | 1,542.49 | 3.44 | 1.38 | 3.16 |
| 8,122.00 | 92.38 | 224.66 | 6,521.39 | -1,571.18 | -1,086.34 | 1,565.27 | 7.80 | 7.44 | 2.34 |
| 8,153.00 | 91.38 | 223.16 | 6,520.37 | -1,593.50 | -1,107.82 | 1,587.48 | 5.81 | -3.23 | -4.84 |
| 8,185.00 | 90.31 | 222.61 | 6,519.90 | -1,616.94 | -1,129.60 | 1,610.80 | 3.76 | -3.34 | -1.72 |
| 8,216.00 | 91.25 | 221.66 | 6,519.48 | -1,639.93 | -1,150.39 | 1,633.68 | 4.31 | 3.03 | -3.06 |
| 8,246.00 | 90.25 | 220.79 | 6,519.08 | -1,662.49 | -1,170.16 | 1,656.13 | 4.42 | -3.33 | -2.90 |
| 8,279.00 | 91.44 | 220.66 | 6,518.60 | -1,687.50 | -1,191.69 | 1,681.02 | 3.63 | 3.61 | -0.39 |
| 8,311.00 | 90.81 | 219.91 | 6,517.97 | -1,711.90 | -1,212.38 | 1,705.31 | 3.06 | -1.97 | -2.34 |
| 8,343.00 | 92.19 | 219.79 | 6,517.13 | -1,736.46 | -1,232.87 | 1,729.76 | 4.33 | 4.31 | -0.38 |
| 8,374.00 | 95.31 | 220.16 | 6,515.10 | -1,760.16 | -1,252.74 | 1,753.35 | 10.13 | 10.06 | 1.19 |
| 8,403.00 | 93.69 | 219.79 | 6,512.83 | -1,782.32 | -1,271.32 | 1,775.41 | 5.73 | -5.59 | -1.28 |
| 8,437.00 | 90.24 | 217.52 | 6,511.66 | -1,808.85 | -1,292.54 | 1,801.82 | 12.14 | -10.15 | -6.68 |
| 8,465.00 | 91.06 | 220.54 | 6,511.34 | -1,830.60 | -1,310.17 | 1,823.47 | 11.18 | 2.93 | 10.79 |
| 8,496.00 | 92.13 | 220.91 | 6,510.48 | -1,854.08 | -1,330.38 | 1,846.85 | 3.65 | 3.45 | 1.19 |
| 8,528.00 | 90.50 | 220.66 | 6,509.75 | -1,878.30 | -1,351.28 | 1,870.96 | 5.15 | -5.09 | -0.78 |
| 8,559.00 | 89.06 | 219.41 | 6,509.87 | -1,902.04 | -1,371.22 | 1,894.58 | 6.15 | -4.65 | -4.03 |
| 8,591.00 | 90.63 | 220.66 | 6,509.95 | -1,926.53 | -1,391.80 | 1,918.97 | 6.27 | 4.91 | 3.91 |
| 8,623.00 | 91.04 | 221.06 | 6,509.49 | -1,950.73 | -1,412.74 | 1,943.06 | 1.79 | 1.28 | 1.25 |
| 8,654.00 | 91.19 | 219.79 | 6,508.88 | -1,974.33 | -1,432.83 | 1,966.54 | 4.12 | 0.48 | -4.10 |
| 8,686.00 | 90.56 | 219.66 | 6,508.39 | -1,998.94 | -1,453.28 | 1,991.04 | 2.01 | -1.97 | -0.41 |

Weatherford International Ltd.

Survey Report



Company:

QUESTAR EXPLORATION AND PRODUCTION Local Co-ordinate Reference:

Project:

UINTAH COUNTY, UTAH

Site: Well: BRENNAN #6 **BRENNAN #6**

Wellbore:

BRENNAN #6

Design:

BRENNAN #6

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well BRENNAN #6

WELL @ 4692.40ft (Original Well Elev)

WELL @ 4692.40ft (Original Well Elev)

Minimum Curvature

EDM 2003.21 Single User Db

Survey

| and the second of | | | | | | | | | |
|---------------------------|--------------------|----------------|---------------------------|---------------|---------------|-----------------------------|-----------------------------|----------------------------|---------------------------|
| Measured Depth (ft) | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
| 8,717.00 | 89.00 | 217.91 | 6,508.51 | -2,023.10 | -1,472.70 | 2,015.10 | 7.56 | -5.03 | -5.65 |
| 8,749.00 | 91.13 | 219.41 | 6,508.48 | -2,048.09 | -1,492.69 | 2.039.97 | 8.14 | 6.66 | 4.60 |
| 8,780.00 | 91.13 | 219.41 | 6,507.65 | -2,046.09 | -1,492.69 | 2,039.97 | 2.61 | 6.66 2.61 | 4.69 0.00 |
| | 90.06 | 217.04 | | | | | | | |
| 8,812.00 | | | 6,507.09 | -2,097.16 | -1,532.16 | 2,088.83 | 9.45 | -5.88 | -7.41 |
| 8,844.00 | 90.19 | 216.66 | 6,507.02 | -2,122.77 | -1,551.35 | 2,114.34 | 1.26 | 0.41 | -1.19 |
| 8,875.00 | 90.09 | 216.48 | 6,506.94 | -2,147.66 | -1,569.82 | 2,139.13 | 0.66 | -0.32 | -0.58 |
| 8,907.00 | 91.38 | 215.16 | 6,506.53 | -2,173.61 | -1,588.54 | 2,164.97 | 5.77 | 4.03 | -4.13 |
| 8,938.00 | 90.75 | 214.29 | 6,505.96 | -2,199.08 | -1,606.20 | 2,190.35 | 3.46 | -2.03 | -2.81 |
| 8,969.00 | 91.13 | 213.66 | 6,505.45 | -2,224.79 | -1,623.52 | 2,215.96 | 2.37 | 1.23 | -2.03 |
| 9,001.00 | 91.44 | 212.41 | 6,504.73 | -2,251.60 | -1,640.96 | 2,242.69 | 4.02 | 0.97 | -3.91 |
| 9,033.00 | 90.23 | 211.37 | 6,504.26 | -2,278.77 | -1,657.86 | 2,269.76 | 4.99 | -3.78 | -3.25 |
| 9,064.00 | 92.31 | 212.29 | 6,503.58 | -2,305.10 | -1,674.21 | 2,296.00 | 7.34 | 6.71 | 2.97 |
| 9,096.00 | 90.81 | 210.64 | 6,502.70 | -2,332.38 | -1,690.90 | 2,323.19 | 6.97 | -4.69 | -5.16 |
| 9,127.00 | 91.47 | 211.21 | 6,502.09 | -2,358.97 | -1,706.83 | 2,349.70 | 2.81 | 2.13 | 1.84 |
| 9,159.00 | 90.31 | 211.41 | 6,501.59 | -2,386.31 | -1,723.46 | 2,376.94 | 3.68 | -3.63 | 0.63 |
| 9,190.00 | 91.31 | 212.66 | 6,501.15 | -2,412.58 | -1,739.90 | 2,403.13 | 5.16 | 3.23 | 4.03 |
| 9,222.00 | 90.75 | 211.78 | 6,500.58 | -2,439.65 | -1,756.96 | 2,430.10 | 3.26 | -1.75 | -2.75 |
| 9,254.00 | 91.37 | 211.90 | 6,499.99 | -2,466.83 | -1,773.84 | 2,457.19 | 1.97 | 1.94 | 0.38 |
| 9,285.00 | 91.38 | 212.91 | 6,499.24 | -2,493.00 | -1,773.64 | 2,483.26 | 3.26 | 0.03 | 3.26 |
| 9,315.00 | 90.69 | 212.54 | 6,498.70 | -2,493.00 | -1,790.44 | 2,508.41 | 2.61 | -2.30 | -1.23 |
| 9,345.00 | 90.94 | 212.04 | 6,498.27 | -2,513.59 | -1,822.68 | 2,533.68 | 1.86 | 0.83 | -1.23 -1.67 |
| | | | | | | • | | | |
| 9,380.00 | 91.44 | 211.29 | 6,497.55 | -2,573.37 | -1,841.05 | 2,563.36 | 2.58 | 1.43 | -2.14 |
| 9,409.00 | 91.25 | 210.54 | 6,496.87 | -2,598.24 | -1,855.95 | 2,588.16 | 2.67 | -0.66 | -2.59 |
| 9,443.00 | 92.19 | 208.66 | 6,495.84 | -2,627.79 | -1,872.73 | 2,617.61 | 6.18 | 2.76 | -5.53 |
| 9,475.00 | 92.13 | 207.79 | 6,494.64 | -2,655.97 | -1,887.86 | 2,645.71 | 2.72 | -0.19 | -2.72 |
| 9,506.00 | 91.94 | 207.61 | 6,493.54 | -2,683.40 | -1,902.26 | 2,673.06 | 0.84 | -0.61 | -0.58 |
| 9,538.00 | 91.44 | 207.04 | 6,492.59 | -2,711.81 | -1,916.94 | 2,701.39 | 2.37 | -1.56 | -1.78 |
| 9,570.00 | 92.13 | 207.54 | 6,491.60 | -2,740.24 | -1,931.60 | 2,729.74 | 2.66 | 2.16 | 1.56 |
| 9,602.00 | 93.13 | 207.91 | 6,490.13 | -2,768.53 | -1,946.48 | 2,757.95 | 3.33 | 3.13 | 1.16 |
| 9,633.00 | 92.88 | 207.79 | 6,488.50 | -2,795.90 | -1,960.94 | 2,785.25 | 0.89 | -0.81 | -0.39 |
| 9,664.00 | 90.95 | 206.74 | 6,487.47 | -2,823.44 | -1,975.13 | 2,812.71 | 7.09 | -6.23 | -3.39 |
| 9,696.00 | 90.63 | 206.04 | 6,487.03 | -2,852.11 | -1,989.35 | 2,841.29 | 2.41 | -1.00 | -2.19 |
| | 90.63 91.44 | 200.04 | | , | | , | | | |
| 9,727.00 | 91.13 | 207.16 | 6,486.47 | -2,879.82 | -2,003.23 | 2,868.93 | 4.46 | 2.61 | 3.61 |
| 9,759.00 | | | 6,485.75 | -2,908.36 | -2,017.68 | 2,897.39 | 2.17 | -0.97 | -1.94 |
| 9,791.00 | 90.75 | 205.91 | 6,485.22 | -2,937.06 | -2,031.82 | 2,926.02 | 2.30 | -1.19 | -1.97 |
| 9,822.00 | 92.75 | 205.91 | 6,484.28 | -2,964.93 | -2,045.36 | 2,953.82 | 6.45 | 6.45 | 0.00 |
| 9,854.00 | 91.13 | 205.41 | 6,483.19 | -2,993.76 | -2,059.21 | 2,982.57 | 5.30 | -5.06 | -1.56 |
| 9,885.00 | 90.00 | 202.40 | 6,482.89 | -3,022.10 | -2,071.76 | 3,010.83 | 10.37 | -3.65 | -9.71 |
| 9,917.00 | 91.50 | 202.91 | 6,482.47 | -3,051.62 | -2,084.09 | 3,040.29 | 4.95 | 4.69 | 1.59 |
| 9,948.00 | 90.88 | 202.48 | 6,481.83 | -3,080.22 | -2,096.05 | 3,068.82 | 2.43 | -2.00 | -1.39 |
| PBHL BRE | NNAN #6 | | | | | | | | |
| 9,956.00 | 91.10 | 202.59 | 6,481.69 | -3,087.61 | -2,099.11 | 3,076.20 | 3.03 | 2.72 | 1.34 |
| 9,980.00 | 91.75 | 202.91 | 6,481.09 | -3.109.73 | -2.108.39 | 3,098.27 | 3.03 | 2.72 | 1.34 |
| 10,011.00 | 91.75 | 204.41 | 6,480.14 | -3,138.11 | -2,120.82 | 3,126.58 | 4.84 | 0.00 | 4.84 |
| 10,043.00 | 90.88 | 204.41 | 6,479.41 | -3,167.24 | -2,134.05 | 3,155.64 | 2.72 | -2.72 | 0.00 |
| 10,075.00 | 91.38 | 204.41 | 6,478.78 | -3,196.38 | -2,147.27 | 3,184.70 | 1.56 | 1.56 | 0.00 |
| 10,106.00 | 92.00 | 204.91 | 6,477.87 | -3,224.54 | -2,160.20 | 3,212.79 | 2.57 | 2.00 | 1.61 |
| | | | | | | | | | i |
| 10,138.00 | 91.63 | 204.91 | 6,476.85 | -3,253.55 | -2,173.67 | 3,241.73 | 1.16 | -1.16 | 0.00 |
| 10,169.00 | 91.63 | 205.41 | 6,475.97 | -3,281.59 | -2,186.84 | 3,269.70 | 1.61 | 0.00 | 1.61 |
| LAST SVY | | 00 | 0.4=+== | 0.00: :- | | | | | |
| 10,213.00 | 91.62 | 204.91 | 6,474.72 | -3,321.40 | -2,205.54 | 3,309.41 | 1.14 | -0.02 | -1.14 |
| PROJ SVY | | | | | | | | | : |
| 10,255.00 | 91.62 | 204.91 | 6,473.53 | -3,359.48 | -2,223.22 | 3,347.39 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |

10,255.00

6,473.53

-3,359.48

Weatherford International Ltd.

Survey Report



QUESTAR EXPLORATION AND PRODUCTION Local Co-ordinate Reference: Well BRENNAN #6 Company: Project: UINTAH COUNTY, UTAH **TVD Reference:** WELL @ 4692.40ft (Original Well Elev) Site: **BRENNAN #6** WELL @ 4692.40ft (Original Well Elev) **MD** Reference: Well: **BRENNAN #6** North Reference: Wellbore: **BRENNAN #6** Minimum Curvature **Survey Calculation Method: BRENNAN #6** EDM 2003.21 Single User Db Design: Database: Wellbore Targets **Target Name** - hit/miss target Dip Angle Dip Dir. **TVD** +N/-S Northing +E/-W **Easting** - Shape (ft) (ft) (ft) (ft) (ft) Latitude Longitude 40° 11' 36.083 N 109° 36' 48.375 W PBHL BRENNAN #6 0.00 0.00 6,496.12 -3,039.18 -2,215.77 7,244,713.24 2,167,385.78 - survey misses target center by 127.13ft at 9955.73ft MD (6481.69 TVD, -3087.36 N, -2099.01 E) - Point **Survey Annotations** Measured Vertical **Local Coordinates** Depth Depth +N/-S +E/-W (ft) (ft) (ft) (ft) Comment 6,711.00 6,525.73 -470.90 -210.93 START ST 10,213.00 6,474.72 -3,321.40 -2,205.54 LAST SVY

| Checked By: | Approved By: | Date: |
|-------------|--------------|-------|

PROJ SVY

-2,223.22

Questar E & P

CONFIDENTIAL **Deviation Summary**

Page 1 of 5

| Well N | lame: BREN | NAN 6 | | | | Location: 19- 7-S 21-E 26 | | | | S/T# | V.S. AZI (°) |
|--|------------|-------|----------|----------|-------------|---------------------------------------|----------|---------------|-----------|-----------|--------------|
| TMD: 10,213.0 (ft) TVD: 6,474.17 (ft) | | | | | | Spud Date: 7/8/1971 | | | | ОН | 218.00 |
| Closure Distance: 3,986.9 (ft) Closure Direction: 213.60 (°) | | | | | | Calculation Method: Minimum Curvature | | | | 01 | 216.09 |
| S/T# | TMD | Angle | Azimuth | СТМ | TVD | N/-S | E/-W | Vert. Section | DLS | BUR | Туре |
| | (ft) | (°) · | (°) | | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | |
| 01 | 6,100.0 | 2.25 | 157.46 | NYN | 6,096.58 | -176.20 | 0.95 | 141.81 | 0.00 | 0.00 | GYR |
| 01 | 6,176.0 | 9.40 | 213.90 | YNN | 6,172.17 | -182.74 | -1.94 | 148.82 | 11.01 | 9.41 | MWD |
| 01 | 6,208.0 | 15.19 | 213.79 | YNN | 6,203.43 | -188.40 | -5.74 | 155.62 | 18.09 | 18.09 | MWD |
| 01 | 6,239.0 | 21.17 | 217.55 | YNN | 6,232.87 | -196.22 | -11.41 | 165.29 | 19.65 | 19.29 | MWD |
| 01 | 6,271.0 | 24.57 | 222.06 | YNN | 6,262.35 | -205.74 | -19.39 | 177.68 | 11.95 | 10.63 | MWD |
| 01 | 6,303.0 | 27.03 | 220.61 | YNN | 6,291.16 | -216.20 | -28.59 | 191.55 | 7.94 | 7.69 | MWD |
| 01 | 6,335.0 | 29.65 | 219.38 | YNN | 6,319.32 | -227.84 | -38.34 | 206.71 | 8.39 | 8.19 | MWD |
| 01 | 6,367.0 | 33.84 | 216.10 | YNN | 6,346.53 | -241.17 | -48.62 | 223.53 | 14.16 | 13.09 | MWD |
| 01 | 6,398.0 | 38.81 | 213.91 | YNN | 6,371.50 | -256.22 | -59.13 | 241.88 | 16.57 | 16.03 | MWD |
| 01 | 6,429.0 | 42.35 | 214.19 | YNN | 6,395.04 | -272.92 | -70.42 | 262.03 | 11.43 | 11.42 | MWD |
| 01 | 6,461.0 | 45.19 | 213.91 | YNN | 6,418.14 | -291.26 | -82.81 | 284.15 | 8.90 | 8.88 | MWD |
| 01 | 6,490.0 | 47.69 | 214.54 | YNN | 6,438.13 | -308.63 | -94.63 | 305.15 | 8.76 | 8.62 | MWD |
| 01 | 6,521.0 | 53.81 | 214.66 | YNN | 6,457.73 | -328.38 | -108.26 | 329.14 | 19.74 | 19.74 | MWD |
| 01 | 6,553.0 | 60.69 | 214.29 | YNN | 6,475.03 | -350.56 | -123.48 | 356.02 | 21.52 | 21.50 | MWD |
| 01 | 6,585.0 | 64.72 | 216.10 | YNN | 6,489.71 | -373.79 | -139.88 | 384.45 | 13.56 | 12.59 | MWD |
| 01 | 6,616.0 | 69.44 | 215.79 | YNN | 6,501.77 | -396.90 | -156.63 | 412.99 | 15.25 | 15.23 | MWD |
| 01 | 6,648.0 | 74.00 | 216.41 | YNN | 6,511.81 | -421.44 | -174.53 | 443.37 | 14.37 | 14.25 | MWD |
| 01 | 6,679.0 | 77.31 | 216.04 | YNN | 6,519.49 | -445.66 | -192.28 | 473.40 | 10.74 | 10.68 | MWD |
| 01 | 6,711.0 | 80.25 | 216.89 | YNN | 6,525.71 | -470.90 | -210.93 | 504.78 | 9.55 | 9.19 | MWD |
| 01 | 6,742.0 | 84.69 | 217.41 | YNN | 6,529.78 | -495.39 | -229.48 | 535.50 | 14.42 | 14.32 | MWD |
| 01 | 6,774.0 | 88.25 | 217.66 | YNN | 6,531.75 | -520.72 | -248.94 | 567.43 | 11.15 | 11.13 | MWD |
| 01 | 6,806.0 | 91.06 | 218.29 | YNN | 6,531.94 | -545.94 | -268.63 | 599.41 | 9.00 | 8.78 | MWD |
| 01 | 6,837.0 | 90.50 | 218.91 | YNN | 6,531.52 | -570.16 | -287.97 | 630.37 | 2.69 | -1.81 | MWD |
| 01 | 6,866.0 | 87.81 | 218.91 | YNN | 6,531.94 | -592.72 | -306.18 | 659.33 | 9.28 | -9.28 | MWD |
| 01 | 6,896.0 | 84.36 | 218.34 | YNN | 6,533.99 | -616.10 | -324.86 | 689.23 | 11.66 | -11.50 | MWD |
| 02 | 6,711.0 | 80.25 | 216.89 | NYN | 6,525.71 | -470.92 | -210.84 | 504.75 | 0.00 | 0.00 | MWD |
| 02 | 6,744.0 | 82.79 | 213.60 | YNN | 6,530.58 | -497.57 | -229.67 | 533.49 | 12.51 | 7.70 | MWD |
| 02 | 6,775.0 | 84.49 | 213.51 | YNN | 6,534.01 | -523.25 | -246.70 | 564.21 | 5.49 | 5.48 | MWD |
| 02 | 6,807.0 | 90.69 | 212.54 | YNN | 6,535.36 | -550.04 | -264.11 | 596.04 | 19.61 | 19.38 | MWD |
| 02 | 6,838.0 | 93.19 | 211.86 | YNN | 6,534.31 | -576.25 | -280.62 | 626.86 | 8.36 | 8.06 | MWD |
| 02 | 6,870.0 | 90.69 | 212.41 | YNN | 6,533.22 | -603.33 | -297.63 | 658.67 | 8.00 | -7.81 | DWM |
| 02 | 6,900.0 | 91.13 | 212.54 | YNN | 6,532.75 | -628.64 | -313.74 | 688.53 | 1.53 | 1.47 | MWD |
| 02 | 6,932.0 | 91.71 | 211.57 | YNN | 6,531.95 | -655.75 | -330.72 | 720.35 | 3.53 | 1.81 | MWD |
| <u> </u> | L | | <u> </u> | <u> </u> | ļ <u></u> . | | <u> </u> | l <u></u> | | l | <u> </u> |

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Questar E & P

Deviation Summary

| TMD: 10 | me: BRENN 0,213.0 (ft) Distance: 3,9 | | TVD: 6,474.17 Closure Direct | • • | .60 (°) | Sp | oud Date: 7/8/19 | -S 21-E 26 971 od: Minimum Cu | ırvature | S/T # OH 01 | V.S. AZI (°) 218.00 216.09 |
|---------|--|-------|---------------------------------|-----|----------|-----------|------------------|-------------------------------------|-----------|-------------------|----------------------------------|
| S/T# | TMD | Angle | Azimuth | СТМ | TVD | N/-S | E/-W | Vert. Section | DLS | BUR | Туре |
| | (ft) | (°) | (°) | | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | |
| 02 | 6,963.0 | 90.69 | 211.91 | YNN | 6,531.30 | -682.11 | -347.02 | 751.16 | 3.47 | -3.29 | MWD |
| 02 | 6,995.0 | 89.06 | 213.04 | YNN | 6,531.37 | -709.10 | -364.20 | 783.01 | 6.20 | -5.09 | MWD |
| 02 | 7,027.0 | 89.00 | 213.54 | YNN | 6,531.92 | -735.85 | -381.76 | 814.89 | 1.57 | -0.19 | MWD |
| 02 | 7,058.0 | 89.13 | 213.54 | YNN | 6,532.42 | -761.68 | -398.89 | 845.79 | 0.42 | 0.42 | MWD |
| 02 | 7,090.0 | 91.90 | 214.63 | YNN | 6,532.13 | -788.18 | -416.82 | 877.72 | 9.30 | 8.66 | MWD |
| 02 | 7,121.0 | 93.44 | 214.79 | YNN | 6,530.69 | -813.64 | -434.45 | 908.63 | 4.99 | 4.97 | MWD |
| 02 | 7,143.0 | 93.44 | 214.80 | YNN | 6,529.37 | -831.67 | -446.98 | 930.56 | 0.05 | 0.00 | MWD |
| 02 | 7,174.0 | 92,39 | 214.57 | YNN | 6,527.79 | -857.13 | -464.60 | 961.46 | 3.47 | -3.39 | MWD |
| 02 | 7,206.0 | 91.13 | 216.04 | YNN | 6,526.81 | -883.23 | -483.08 | 993.41 | 6.05 | -3.94 | MWD |
| 02 | 7,238.0 | 90.75 | 215.91 | YNN | 6,526.29 | -909.12 | -501.88 | 1,025.39 | 1.26 | -1.19 | MWD |
| 02 | 7,269.0 | 89.25 | 217.66 | YNN | 6,526.29 | -933.95 | -520.44 | 1,056.38 | 7.43 | -4.84 | MWD |
| 02 | 7,301.0 | 88.69 | 217.66 | YNN | 6,526.86 | -959.28 | -539.99 | 1,088.37 | 1.75 | -1.75 | MWD |
| 02 | 7,332.0 | 89.38 | 218.16 | YNN | 6,527.38 | -983.73 | -559.03 | 1,119.37 | 2.75 | 2.23 | MWD |
| 02 | 7,364.0 | 90,88 | 217.91 | YNN | 6,527.31 | -1,008.94 | -578.75 | 1,151.37 | 4.75 | 4.69 | MWD |
| 02 | 7,395.0 | 91.25 | 218.41 | YNN | 6,526.73 | -1,033.31 | -597.90 | 1,182.36 | 2.01 | 1.19 | MWD |
| 02 | 7,427.0 | 90.63 | 218.79 | YNN | 6,526.21 | -1,058.31 | -617.86 | 1,214.35 | 2.27 | -1.94 | MWD |
| 02 | 7,458.0 | 91.13 | 220.66 | YNN | 6,525.73 | -1,082.15 | -637.67 | 1,245.34 | 6.24 | 1.61 | MWD |
| 02 | 7,490.0 | 91.56 | 220.16 | YNN | 6,524.98 | -1,106.51 | -658.41 | 1,277.30 | 2.06 | 1.34 | MWD |
| 02 | 7,522.0 | 91,54 | 220.47 | YNN | 6,524.12 | -1,130.90 | -679.10 | 1,309.26 | 0.97 | -0.06 | MWD |
| 02 | 7,553.0 | 91.50 | 220.16 | YNN | 6,523.29 | -1,154.53 | -699.15 | 1,340.22 | 1.01 | -0.13 | MWD |
| 02 | 7,585.0 | 91.69 | 220.29 | YNN | 6,522.40 | -1,178.95 | -719.81 | 1,372.19 | 0.72 | 0.59 | MWD |
| 02 | 7,616.0 | 90.63 | 221.54 | YNN | 6,521.78 | -1,202.37 | -740.11 | 1,403.14 | 5.29 | -3.42 | MWD |
| 02 | 7,648.0 | 90.94 | 220.91 | YNN | 6,521.34 | -1,226.44 | -761.20 | 1,435.09 | 2.19 | 0.97 | MWD |
| 02 | 7,680.0 | 90.75 | 222.41 | YNN | 6,520.87 | -1,250.34 | -782.46 | 1,467.02 | 4.72 | -0.59 | MWD |
| 02 | 7,711.0 | 91.30 | 223.51 | YNN | 6,520.31 | -1,273.02 | -803.59 | 1,497.89 | 3.97 | 1.77 | MWD |
| 02 | 7,743.0 | 91.19 | 223.79 | YNN | 6,519.62 | -1,296.17 | -825.67 | 1,529.73 | 0.94 | -0.34 | MWD |
| 02 | 7,774.0 | 90.44 | 224.41 | YNN | 6,519.18 | -1,318.43 | -847.24 | 1,560.55 | 3.14 | -2.42 | MWD |
| 02 | 7,806.0 | 87.94 | 224.16 | YNN | 6,519.63 | -1,341.34 | -869.58 | 1,592.35 | 7.85 | -7.81 | MWD |
| 02 | 7,837.0 | 88.88 | | YNN | 6,520.49 | -1,363.66 | -891.07 | 1,623.18 | 3.43 | 3.03 | MWD |
| 02 | 7,869.0 | 89.50 | | YNN | 6,520.94 | -1,386.78 | -913.19 | 1,655.01 | 1.98 | 1.94 | MWD |
| 02 | 7,901.0 | 90.75 | 223.29 | YNN | 6,520.87 | -1,409.98 | -935.23 | 1,686.86 | 4.21 | 3.91 | MWD |
| 02 | 7,932.0 | 92.06 | 221.79 | YNN | 6,520.11 | -1,432.81 | -956.18 | 1,717.76 | 6.42 | 4.23 | MWD |
| 02 | 7,964.0 | 89.59 | 222.61 | YNN | 6,519.65 | -1,456.51 | -977.67 | 1,749.66 | 8.13 | -7.72 | MWD |
| | | | | | <u> </u> | | | <u> </u> | <u> </u> | | |

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Deviation Summary

| | ame: BRENN | NAN 6 | EV.D. 0 474 47 | / 5 4\ | | | | -S 21-E 26 | | S/T# | V.S. AZI (°) |
|-------|---------------------------------|-------|----------------------------------|---------------|----------|-----------|--------------------------------------|---------------|-------------|-----------|--------------------|
| | 0,213.0 (ft) • Distance: 3,9 | | TVD: 6,474.17 Closure Directi | | .60 (°) | | oud Date: 7/8/19 alculation Metho | | ır∨ature | OH 01 | 218.00 216.09 |
| S/T# | TMD | Angle | Azimuth | стм | TVD | N/-S | E/-W | Vert. Section | DLS | BUR | Type |
| 0,1 # | (ft) | (°) | (°) | | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | |
| 02 | 7.995.0 | 88.25 | 224.04 | YNN | 6,520.23 | -1,479.06 | -998.94 | 1,780.52 | 6.32 | -4.32 | MWD |
| 02 | 8,027.0 | 88.06 | 223.66 | YNN | 6,521.26 | -1,502.13 | -1,021.09 | 1,812.34 | 1.33 | -0.59 | MWD |
| 02 | 8,058.0 | 89.56 | 222.91 | YNN | 6,521.91 | -1,524.69 | -1,042.34 | 1,843.20 | 5.41 | 4.84 | MWD |
| 02 | 8,090.0 | 90.00 | 223.91 | YNN | 6,522.03 | -1,547.93 | -1,064.33 | 1,875.06 | 3.41 | 1.38 | MWD |
| 02 | 8,122.0 | 92.38 | 224.66 | YNN | 6,521.37 | -1,570.83 | -1,086.67 | 1,906.86 | 7.80 | 7.44 | MWD |
| 02 | 8,153.0 | 91.38 | 223.16 | YNN | 6,520.35 | -1,593.15 | -1,108.16 | 1,937.67 | 5.81 | -3.23 | MWD |
| 02 | 8,185.0 | 90.31 | 222.61 | YNN | 6,519.88 | -1,616.60 | -1,129.93 | 1,969.55 | 3.76 | -3.34 | MWD |
| 02 | 8,216.0 | 91.25 | 221.66 | YNN | 6,519.46 | -1,639.58 | -1,150.73 | 2,000.47 | 4.31 | 3.03 | MWD |
| 02 | 8,246.0 | 90.25 | 220.79 | YNN | 6,519.06 | -1,662.15 | -1,170.49 | 2,030.42 | 4.42 | -3.33 | MWD |
| 02 | 8,279.0 | 91.44 | 220.66 | YNN | 6,518.58 | -1,687.15 | -1,192.02 | 2,063.38 | 3.63 | 3.61 | MWD |
| 02 | 8,311.0 | 90.81 | 219.91 | YNN | 6,517.95 | -1,711.56 | -1,212.71 | 2,095.34 | 3.06 | -1.97 | MWD |
| 02 | 8,343.0 | 92.19 | 219.79 | YNN | 6,517.11 | -1,736.12 | -1,233.21 | 2,127.32 | 4.33 | 4.31 | MWD |
| 02 | 8,374.0 | 95.31 | 220.16 | YNN | 6,515.08 | -1,759.82 | -1,253.08 | 2,158.23 | 10.13 | 10.06 | MWD |
| 02 | 8,403.0 | 93.69 | 219.79 | YNN | 6,512.81 | -1,781.97 | -1,271.65 | 2,187.12 | 5.73 | -5.59 | MWD |
| 02 | 8,437.0 | 90.24 | 217.52 | YNN | 6,511.64 | -1,808.50 | -1,292.87 | 2,221.09 | 12.14 | -10.15 | MWD |
| 02 | 8,465.0 | 91.06 | 220.54 | YNN | 6,511.32 | -1,830.25 | -1,310.50 | 2,249.08 | 11.18 | 2.93 | MWD |
| 02 | 8,496.0 | 92.13 | 220.91 | YNN | 6,510.46 | -1,853.73 | -1,330.72 | 2,280.03 | | 3.45 | MWD |
| 02 | 8,528.0 | 90.50 | 220.66 | YNN | 6,509.73 | -1,877.96 | -1,351.61 | 2,311.99 | 1 | | MWD |
| 02 | 8,559.0 | 89.06 | 219.41 | YNN | 6,509.85 | -1,901.69 | -1,371.55 | 2,342.96 | | -4.65 | MWD |
| 02 | 8,591.0 | 90.63 | 220.66 | YNN | 6,509.93 | -1,926.19 | -1,392.14 | 2,374.94 | 1 | | MWD |
| 02 | 8,623.0 | 91.04 | 221.06 | YNN | 6,509.47 | -1,950.39 | -1,413.07 | 2,406.90 | | | 1 |
| 02 | 8,654.0 | 91.19 | 219.79 | YNN | 6,508.86 | -1,973.98 | -1,433.17 | 2,437.86 | 1 | 1 | |
| 02 | 8,686.0 | 90.56 | 219.66 | YNN | 6,508.37 | -1,998.59 | -1,453.61 | 2,469.85 | | | l |
| 02 | 8,717.0 | 89.00 | 217.91 | YNN | 6,508.49 | -2,022.75 | -1,473.03 | 2,500.84 | | 1 | i |
| 02 | 8,749.0 | 91.13 | 219.41 | YNN | 6,508.46 | | -1,493.02 | 2,532.84 | 1 | ! | |
| 02 | 8,780.0 | 91.94 | 219.41 | YNN | 6,507.63 | 1 | -1,512.69 | 2,563.81 | 2.61 | | MWD |
| 02 | 8,812.0 | 90.06 | 217.04 | YNN | 6,507.07 | -2,096.81 | -1,532.49 | 2,595.81 | 9.45 | 1 | |
| 02 | 8,844.0 | 90.19 | 216.66 | YNN | 6,507.00 | | -1,551.68 | 2,627.80 | 1 | i | MWD |
| 02 | 8,875.0 | 90.09 | 216.48 | YNN | 6,506.92 | | -1,570.15 | 2,658.79 | | | |
| 02 | 8,907.0 | 91.38 | 215.16 | YNN | 6,506.51 | -2,173.26 | -1,588.87 | 2,690.76 | | | · |
| 02 | 8,938.0 | 90.75 | 214.29 | YNN | 6,505.94 | 1 | -1,606.53 | 2,721.71 | 1 | 1 | 1 |
| 02 | 8,969.0 | 91.13 | 213.66 | YNN | 6,505.43 | | -1,623.85 | 2,752.63 | ł | | |
| 02 | 9,001.0 | 91.44 | 212.41 | YNN | 6,504.71 | -2,251.26 | -1,641.29 | 2,784.50 | 4.02 | 0.97 | MWD |
| | | | | L | <u> </u> | | L | L | | | 1400000 000000 444 |

CONFIDENTIAL

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Questar E & P

Deviation Summary

| | ame: BRENN | NAN 6 | TVD: 6,474.17 | · (#\) | | | | -S 21-E 26 | | S/T# | V.S. AZI (°) |
|------|----------------------------------|-------|----------------|--------|----------|-----------|------------------------------------|----------------------|-----------|-------------|------------------|
| | 10,213.0 (ft) e Distance: 3,9 | | Closure Direct | | 60 (°) | | ud Date: 7/8/19 Iculation Metho | 771 d: Minimum Cu | ırvature | ОН 01 | 218.00 216.09 |
| S/T# | TMD | Angle | Azimuth | стм | TVD | N/-S | E/-W | Vert. Section | DLS | BUR | 7ype |
| 3/1# | (ft) | • | | CTW | (ft) | (ft) | (ft) | (ft) | (°/100ft) | (°/100ft) | 1,700 |
| | (11) | (°) | (°) | | (11) | | | | (710011) | (770011) | |
| 02 | 9,033.0 | 90.23 | 211.37 | YNN | 6,504.24 | -2,278.43 | -1,658.19 | 2,816.31 | 4.99 | -3.78 | MWD |
| 02 | 9,064.0 | 92.31 | 212.69 | YNN | 6,503.56 | -2,304.70 | -1,674.63 | 2,847.13 | 7.95 | 6.71 | MWD |
| 02 | 9,096.0 | 90.81 | 210.64 | YNN | 6,502.68 | -2,331.92 | -1,691.42 | 2,878.92 | 7.94 | -4.69 | MWD |
| 02 | 9,127.0 | 91.47 | 211.21 | YNN | 6,502.07 | -2,358.51 | -1,707.35 | 2,909.68 | 2.81 | 2.13 | MWD |
| 02 | 9,159.0 | 90.31 | 211.41 | YNN | 6,501.57 | -2,385.85 | -1,723.98 | 2,941.46 | 3.68 | -3.63 | MWD |
| 02 | 9,190.0 | 91.31 | 212.66 | YNN | 6,501.13 | -2,412.12 | -1,740.42 | 2,972.29 | 5.16 | 3.23 | MWD |
| 02 | 9,222.0 | 90.75 | 211.79 | YNN | 6,500.56 | -2,439.19 | -1,757.48 | 3,004.12 | 3.23 | -1.75 | MWD |
| 02 | 9,254.0 | 91.37 | 211.90 | YNN | 6,499.97 | -2,466.37 | -1,774.36 | 3,035.93 | 1.97 | 1.94 | MWD |
| 02 | 9,285.0 | 91.38 | 212.91 | YNN | 6,499.22 | -2,492.53 | -1,790.97 | 3,066.77 | 3.26 | 0.03 | MWD |
| 02 | 9,317.0 | 90.69 | 212.54 | YNN | 6,498.64 | -2,519.45 | -1,808.26 | 3,098.63 | 2.45 | -2.16 | MWD |
| 02 | 9,348.0 | 90.94 | 212.04 | YNN | 6,498.20 | -2,545.65 | -1,824.82 | 3,129.47 | 1.80 | 0.81 | MWD |
| 02 | 9,380.0 | 91.44 | 211.29 | YNN | 6,497.54 | -2,572.88 | -1,841.62 | 3,161.27 | 2.82 | 1.56 | MWD |
| 02 | 9,411.0 | 91.25 | 210.54 | YNN | 6,496.81 | -2,599.47 | -1,857.54 | 3,192.02 | 2.50 | -0.61 | MWD |
| 02 | 9,443.0 | 92.19 | 208.66 | YNN | 6,495.85 | -2,627.28 | -1,873.34 | 3,223.67 | 6.57 | 2.94 | MWD |
| 02 | 9,475.0 | 92.13 | 207.79 | YNN | 6,494.64 | -2,655.45 | -1,888.46 | 3,255.18 | 2.72 | -0.19 | MWD |
| 02 | 9,506.0 | 91.94 | 207.61 | YNN | 6,493.54 | -2,682.88 | -1,902.86 | 3,285.66 | 0.84 | -0.61 | MWD |
| 02 | 9,538.0 | 91.44 | 207.04 | YNN | 6,492.60 | -2,711.30 | -1,917.54 | 3,317.09 | 2.37 | -1.56 | MWD |
| 02 | 9,570.0 | 93.13 | 207.91 | YNN | 6,491.32 | -2,739.67 | -1,932.30 | 3,348.53 | 5.94 | 5.28 | MWD |
| 02 | 9,602.0 | 93.13 | 207.91 | YNN | 6,489.58 | -2,767.90 | -1,947.25 | 3,379.98 | 0.00 | 0.00 | MWD |
| 02 | 9,633.0 | 92.88 | 207.79 | YNN | 6,487.95 | -2,795.27 | -1,961.71 | 3,410.46 | 0.89 | -0.81 | MWD |
| 02 | 9,664.0 | 90.95 | 206.74 | YNN | 6,486.91 | -2,822.81 | -1,975.91 | 3,440.90 | 7.09 | -6.23 | MWD |
| 02 | 9,696.0 | 90.63 | 206.04 | YNN | 6,486.47 | -2,851.48 | -1,990.13 | 3,472.24 | 2.41 | -1.00 | MWD |
| 02 | 9,727.0 | 91.44 | | YNN | 6,485.91 | -2,879.19 | -2,004.01 | 3,502.62 | 4.46 | 2.61 | MWD |
| 02 | 9,759.0 | 91.13 | | YNN | 6,485.20 | -2,907.73 | -2,018.46 | 3,534.01 | 2.17 | -0.97 | MWD |
| 02 | 9,791.0 | 90.75 | 5 | YNN | 6,484.67 | -2,936.43 | -2,032.59 | 3,565.33 | 2.30 | -1.19 | MWD |
| OH | 9,822.0 | 92.75 | i | YNN | 6,483.72 | -2,964.30 | -2,046.13 | 3,595.63 | 6.45 | 6.45 | MWD |
| ОН | 9,854.0 | 91.13 | | YNN | 6,482.64 | -2,993.13 | -2.059.98 | 3,626.87 | 5.30 | -5.06 | MWD |
| ОН | 9,885.0 | 90.00 | l | YNN | 6,482.34 | -3,021.47 | -2,072.54 | 3,656.93 | 10.37 | -3.65 | MWD |
| ОН | 9,917.0 | 91.50 | 1 | YNN | 6,481.92 | -3,050.99 | -2,084.86 | 3,687.79 | 4.95 | | MWD |
| ОН | 9.948.0 | 90.88 | 1 | YNN | 6,481.27 | -3,079.59 | -2,096.82 | 3,717.68 | 2.43 | -2.00 | MWD |
| ОН | 9,980.0 | 91.75 | | YNN | 6,480.54 | -3,109.10 | -2,109.17 | 3,748.54 | 3.03 | 2.72 | MWD |
| ОН | 10.011.0 | 91.75 | | YNN | 6,479.59 | -3,137.48 | -2,121.60 | 3,778.56 | 4.84 | 0.00 | MWD |
| ОН | 10,043.0 | 90.88 | 1 | YNN | 6,478.86 | -3,166.61 | -2,134.82 | 3,809.65 | 2.72 | -2.72 | MWD |
| | , | | | | | , | , | ., | | | |
| | | | | | | | | | | Dulatadi 44 | |

| Questar | E | & | Р | | | | | |
|---------|---|---|---|--|--|--|--|--|
|---------|---|---|---|--|--|--|--|--|

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Deviation Summary

| TMD: 10 | me: BRENN 0,213.0 (ft) | ٦ | ΓVD: 6,474.17 | | 00 (0) | Spu | ud Date: 7/8/19 | -S 21-E 26 | | S/T# OH | V.S. AZI (°) 218.00 |
|----------------|--|----------------------------------|--|--------------------------|--|---|---|--|--------------------------------------|--|--------------------------|
| S/T# | TMD (ft) | 86.9 (ft) C Angle (°) | Closure Direct Azimuth (°) | CTM | TVD (ft) | N/-s (ft) | E/-W (ft) | Vert. Section (ft) | DLS (°/100ft) | 01 BUR (°/100ft) | 216.09 Type |
| ОН ОН ОН | 10,075.0 10,106.0 10,138.0 10,169.0 10,213.0 | 91.38 92.00 91.63 91.62 | 204.41 204.91 204.91 205.41 204.91 | YNN YNN YNN YNN | 6,478.23 6,477.31 6,476.30 6,475.42 6,474.17 | -3,195.75 -3,223.91 -3,252.92 -3,280.96 -3,320.77 | -2,148.04 -2,160.97 -2,174.44 -2,187.62 -2,206.32 | 3,840.75 3,870.90 3,902.05 3,932.27 3,975.15 | 1.56 2.57 1.16 1.61 1.14 | 1.56 2.00 -1.16 0.00 -0.02 | MWD MWD MWD MWD |
| | | | | | | | CON | FIDENTIA | R _{M3} | | |

Page 1 of 7

Questar E & P

Operations Summary Report - DeILLING

Well Name: BRENNAN 6

Location: 19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date:

7/8/1971

Rig Release: 10/22/2009

Rig Number: 3

| Ny Name. | DASIN WE | LL SENI | | | Tig Number. |
|-----------|---------------|---------|------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 12/2/2008 | 06:00 - 16:00 | 10.00 | нот | 1 | Drilling Prep On 12-2-2008 7:00 AM MIRU hotoiler pumped 100 bbls chemical water down casing, unseat pump, flush tubing with 50 bbls chemical water. POOH with rods. SDFN 5:00 PM. |
| | | | | | 24 Hour Forecast: Finish POOH with rods and pump, POOH with tubing run, casing scraper. |
| | | | | | Casing size: 5 1/2" 17# K-55 Casing Depth: 7300' |
| 12/3/2008 | 06:00 - 16:00 | 10.00 | ВОР | 1 | Drilling Prep |
| | | | | | On 12-3-2008 7:00 AM Finish POOH and lay down rods and pump. ND WH, NU BOPs, release TAC, change over to tubing equipment. POOH with tubing, TAC and mud anchor. SDFN 5:00 PM. |
| | | | | | 24 Hour Forecast:Run casing scraper. |
| | | | | | Casing size: 5 1/2" 17# K-55 Casing Depth: 7300' |
| 9/11/2009 | 06:00 - 18:00 | 12.00 | LOC | 3 | LOAD OUT RIG AND MOBALIZE FROM FARMINGTON NW TO BRENNAN 6 LOCATION, RECIEVED 5 LOADS, PINNED DERRICK TO CARRIER, RECIEVED 2 7/8 DRILL STRING / 285 JOINTS OF 2 7/8 AOH DP AND 75 JOINTS OF SLH-90 HWDP |
| | 18:00 - 06:00 | 12.00 | отн | | WAIT ON DAYLIGHT |
| | 18:00 - | | | | NOTIFIED DUSTIN DOUCET WITH UT STATE VERBALLY AND UT BLM VIA |
| | | | | | E-MAIL OF BOP TEST ON SATURDAY 9-12-2009 AT 13:00 HRS |
| 9/12/2009 | 06:00 - 18:00 | 12.00 | LOC | 4 | RIG UP SUB, RAMP, AND BACK CARRIER ON. SET WATER TANK AND DOG HOUSE. RAISE DERRICK, RIG UP FLOOR AND START HANGING TOP DRIVE. HAD TO SHUT TRCKS DOWN ON RIG UP DUE TO MUD TANK BEING HELD UP AT COLO. PORT FOR 8 HRS. |
| | 18:00 - 06:00 | 12.00 | отн | | WAIT ON DAYLIGHT |
| 9/13/2009 | 06:00 - 12:00 | 6.00 | LOC | 4 | FINISHED SETTING RIG IN PLACE, FINISH GENERAL RIG UP AND READY TOPDRIVE |
| | 12:00 - 22:00 | 10.00 | BOP | 1 | NIPPLE UP BOPE |
| | 22:00 - 06:00 | 8.00 | ВОР | 2 | TEST BOP, CASING TO 300 PSI,2 FLOOR VALVES, DART VALVE, TOP DRIVE BALL VALVE, BLIND AND PIPE RAMS AN CHOKE MANIFLOD 3000 PSI HIGH, 250 LOW. ANNNULAR 1500 HIGH, 250 LOW- FUNTION TEST ACCULATOR. DONNA KENNY FOR BLM WITNESSED BOP TEST |
| 9/14/2009 | 06:00 - 07:00 | 1.00 | ВОР | 2 | TEST BOP |
| | 07:00 - 07:30 | | RIG | 1 | RIG SERVICE |
| | 07:30 - 08:30 | 1.00 | отн | | SET WEAR BUSHING |
| | 08:30 - 11:30 |) | | 1 | STRAP AND PICK UPBIT #, CASING SCRAPER,BIT SUB AND BHA |
| | 11:30 - 14:00 | 2.50 | RIG | 2 | REPAIR BROKEN HYDRAULIC HOSE ON CARRIER. |
| | 14:00 - 15:00 | 1 | отн | | HOLD SAFETY MEETING AND RIG UP WEATHERFORD LAY DOWN TRUCK |
| | 15:00 - 20:00 | 1 | TRP | 1 | CONTINUE TO P/U BHA AND DRILL PIPE TO 3600' |
| | 20:00 - 20:30 | 1 | RIG | 1 | RIG SERVICE |
| | 20:30 - 23:00 | li . | TRP | 1 | P/U DRILL PIPE FROM 3600' TO 6108' |
| | 23:00 - 23:30 | | REAM | 1 | WASH 78' FROM 6108' TO 6155', TAG CIBP AT 6155' |
| | 23:30 - 00:00 | ř. | отн | | RIG DOWN LAY DOWN TRUCK |
| | 00:00 - 02:30 | | CIRC | 1 | RIG UP HOT OILER AND CIRCULATE HOT WATER AT 275 DEGREES TO CLEAN OUT CASING, R/D HOT OILER, CIRCULATE TO COOL FLUID FOR TRIP |
| | 02:30 - 03:00 | 1 | TRP | 1 | TRIP OUT OF THE HOLE TO PICK UP WHIPSTOCK |
| | 03:00 - 04:00 | 1.00 | RIG | 1 | WORK ON TOPDRIVE SERVICE LOOP |
| | | | | | ^^IFITFAITIAI |
| | | | | | CONFIDENTIAL |

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Operations Summary Report

Well Name: BRENNAN 6

Location: 19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date:

7/8/1971

Rig Release: 10/22/2009 Rig Number: 3

| Rig Name: | BASIN WE | LL SERE | VICE | | Rig Number: 3 |
|-----------|---------------|---------|------|-------------|--|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 9/14/2009 | 04:00 - 06:00 | 2.00 | TRP | 1 | TRIP OUT OF THE HOLE TO PICK UP WHIPSTOCK |
| /15/2009 | 06:00 - 08:00 | 2.00 | TRP | 2 | TRIP OUT OF HOLE FOR WHIPSTOCK |
| | 08:00 - 08:30 | 0.50 | RIG | 1 | RIG SERVICE |
| | 08:30 - 09:30 | 1.00 | TRP | 1 | PICK UP WHIPSTOCK AND ORIENT TOOLS |
| | 09:30 - 13:00 | 3.50 | TRP | 2 | TRIP IN HOLE WITH WHIPSTOCK |
| | 13:00 - 14:00 | 1.00 | LOG | 4 | HOLD SAFETY MEETING, RIG UP WIRELINE TRUCK AND GYRO TOOL. |
| | 14:00 - 14:30 | 0.50 | LOG | 4 | SEAT GYRO TOOL, ORIENT AND SET WHIPSTOCK @ 217.73 GTF, 6143.46' TO TOP OF WHIPSTOCK |
| | 14:30 - 16:00 | | LOG | 4 | PULL GYRO TOOL, RIG DOWN WIRELINE TRUCK AND SHEAR FORM WHIPSTOCK |
| | 16:00 - 21:00 | 1 | DRL | 7 | MILLING WINDOW F/6143 T/6153, 4' OF RAT HOLE |
| | 21:00 - 22:00 | 1 | CIRC | 1 | PUMP HI-VIS SWEEP |
| | 22:00 - 01:30 | 3.50 | TRP | 10 | PUMP SLUG AND T.O.O.H. FOR DIRECTIONAL TOOLS TO 777' |
| | 01:30 - 05:00 | 3.50 | RIG | 2 | REPAIR TOP DRIVE ELEVATOR LINK |
| | 05:00 - 06:00 | 1.00 | TRP | 10 | TRIP OUT OF HOLE FOR DIRECTIONAL TOOLS |
| /16/2009 | 06:00 - 07:00 | 1.00 | TRP | 1 | LAY DOWN MILLS |
| | 07:00 - 08:00 | 1.00 | RIG | 1 | RIG SERVICE |
| | 08:00 - 10:30 | | RIG | 1 | WORK ON TOP DRIVE LINK TILT |
| | 10:30 - 12:30 | 2.00 | TRP | 1 | P/U DIRECTIONAL TOOLS AND ORIENT |
| | 12:30 - 16:00 | 3.50 | TRP | 1 | TRIP IN THE HOLE AND TAG AT 6153' |
| | 16:00 - 20:30 | 4.50 | TRP | 1 | MAKE UP SIDE ENTRY SUB, RIG UP WIRELINE TRUCK AND GYRO, RUN IN THE HOLE AND ORIENT GYRO TOOL |
| | 20:30 - 23:00 | | DRL | 2 | DIRECTIONAL DRILL FROM 6153' TO 6181' 28 FT ROP 11.2'/HR GPM 100 100% SLIDE |
| | 23:00 - 00:30 | | отн | | POOH WITH GYRO TOOL, MAKE CONNECTION, RUN GYRO BACK IN THE HOLE AND RE-ORIENT |
| | 00:30 - 03:30 | | DRL | 2 | DIRECTIONAL DRILL FROM 6181' TO 6213 32 FT ROP 10.6'/HR GPM 100 100% SLIDE |
| | 03:30 - 05:00 | | OTH | 2 | POOH WITH GYRO TOOL, MAKE CONNECTION, RUN GYRO BACK IN THE HOLE AND RE-ORIENT |
| 0/47/2000 | 05:00 - 06:00 | | DRL | 3 | DIRECTIONAL DRILL FROM 6213' TO 6224' 11' 11'/HR SAME PARAMETERS |
| 9/17/2009 | 06:00 - 08:00 | 1 | DRL | 2 | DIRECTIONAL DRILL F/6224 T/6244 |
| | 08:00 - 09:00 | 1 . | OTH | | PULL GRYO OUT OF HOLE, LAY DOWN SIDE ENTRY SUB |
| | 09:00 - 12:00 | | DRL | 2 | DIRECTIONAL DRILL F/6244 T/6307 63' ROP 21 FT/HR WOB 14 |
| | 12:00 - 12:30 | | RIG | | LUBRICATE RIG |
| | 12:30 - 02:30 | 14.00 | DKL | 2 | DIRECTIONAL DRILL F/6307' T/6498' 191' ROP 13.6 FT/HR WOB 16 NEW TARGET TVD CHANGED TO 6538 AS OF 15:00 HRS AS PER ON SITE |
| | | | | | GEOLOGIST/DENVER |
| | 02:30 - 06:00 | 3.50 | TRP | 10 | PUMP SLUG AND T.O.O.H. |
| /18/2009 | 06:00 - 09:30 | | TRP | 10 | TRIP OUT OF HOLE FOR BIT |
| | 09:30 - 11:00 | | TRP | 1 | CHANGE OUT MOTOR AND BIT, ORIENT AND TEST TOOLS, P/U JARS |
| | 11:00 - 17:30 | | TRP | 10 | TRIP IN HOLE WITH BIT #4 |
| | 17:30 - 06:00 | 12.50 | | 2 | DIRECTIONAL DRILL FROM 6498' TO 6642' 144' ROP 11.5 FT/HR WOB 12/15 |
| /19/2009 | 06:00 - 12:30 | 6.50 | DRL | 2 | DIRECTIONAL DRILL FROM 6642' TO 6711' 69' ROP 10.6 FT/HR WOB 14/20 RPM 257(SLIDE) 297(ROTATE) |
| | 12:30 - 13:00 | 0.50 | RIG | 1 | RIG SERVICE |
| | 13:00 - 00:00 | 11.00 | DRL | 2 | DIRECTIONAL DRILL FROM 6711' TO 6874' 163' ROP 14.8 FT/HR WOB 12/22 RPM 257(SLIDE) 297 (ROTATE) |
| | 00:00 - 01:00 | 1.00 | CIRC | 1 | CIRCULATE UP SAMPLE, PUMP TRIP SLUG |
| | | | | | |
| | | | | <u> </u> | |

Operations Summary Report

Well Name: BRENNAN 6

Spud Date:

7/8/1971

Location:

19- 7-S 21-E 26

Rig Release: 10/22/2009 Rig Number: 3

Rig Name: BASIN WELL SEREVICE

| Date | From - To | Hours | Code | Sub Code | Description of Operations |
|---------------------|---------------|-------|------|-------------|---|
| 9/19/2009 | 01:00 - 06:00 | 5.00 | TRP | 10 | T.O.O.H. FOR BIT#5 |
| 9/20/2009 | 06:00 - 07:00 | 1.00 | TRP | 1 | CHANGE OUT BIT AND MOTOR, ORIENT TOOLS |
| | 07:00 - 08:30 | 1.50 | TRP | 2 | TRIP IN HOLE WITH BIT #5 |
| | 08:30 - 14:30 | 6,00 | RIG | 2 | RIG REPAIR-WORK ON RIGHT ANGLE DRIVE COOLING PROBLEM FOR |
| | | | | | DRAWORKS AND TOP DRIVE. |
| | 14:30 - 19:00 | 4.50 | TRP | 10 | TRIP IN HOLE WITH BIT #5- TIGHT @ 6543' |
| | 19:00 - 19:30 | 0.50 | REAM | 1 | WASH 25' TO BOTTOM |
| | 19:30 - 06:00 | 10.50 | DRL | 1 | DRILLING F/6874' T/6948' 74' |
| | | | | | ROP 7.0 FT/HR WOB 4/15 RPM 205(SLIDE) 245(ROTATE) |
| 9/21/2009 | 06:00 - 09:30 | | DRL | 2 | DIRECTIONAL DRILLING F/6948 T/6964 |
| | 09:30 - 10:30 | 1.00 | CIRC | 1 | PUMP HIGH VIS SWEEP AND CICULATE OUT OF HOLE |
| | 10:30 - 15:00 | 4.50 | TRP | 2 | TRIP OUT OF HOLE FOR NEW BHA, LAY DOWN 8 JOINTS OF DRILL PIPE |
| | 15:00 - 16:00 | 1.00 | TRP | 1 | CHANGE OUT MOTOR AND BIT AND ORIENT |
| | 16:00 - 22:30 | 6.50 | TRP | 2 | TRIP IN THE HOLE TO 6715' |
| | 22:30 - 23:30 | 1.00 | DRL | 3 | ORIENT DIRECTIONAL TOOLS AND ESTABLISH A TROUGH FROM 6711' TO |
| | | | | _ | 6722' |
| | 23:30 - 02:30 | 3.00 | DRL | 7 | SIDE TRACK WELL AND TIME DRILL FROM 6722' TO 6732' 10' |
| | 00.00 00.00 | 0.50 | 551 | | ROP 3.3 FT/HR WOB 0-1 |
| | 02:30 - 06:00 | 3,50 | DRL | 2 | DIRECTIONAL DRILL F/6732' T/6755' 23' |
| 0/00/0000 | 00.00 07.00 | 4.00 | DD1 | | ROP 6.6 FT/HR WOB 15/20 RPM 257 (SLIDE) |
| 9/22/2009 | 06:00 - 07:00 | | DRL | 2 | DIRECTIONAL DRILLING F/6755 T/6779 24' 24'/HR |
| | 07:00 - 08:00 | | CIRC | 1 | CIRCULATE SAMPLES |
| | 08:00 - 14:00 | 0.00 | DRL | 2 | DIRECTIONAL DRILLING F/6779 T/6902 123' 20.5'/HR WOB 15 DHRPM 293 GPM 129 |
| | 14:00 - 14:30 | 0.50 | PIC | 1 | RIG SERVICE |
| | 14:30 - 23:30 | | DRL | 2 | DIRECTIONAL DRILLING F/6902 T/7154' 252' 28'/HR |
| | 14.30 - 23.30 | 9.00 | DILL | _ | WOB 12/20 DHRPM 293 GPM 129 |
| | 23:30 - 01:30 | 2.00 | CIRC | 1 | PUMP AND CIRCULATE OUT VIS SWEEP, PUMP TRIP SLUG |
| | 01:30 - 06:00 | 4.50 | TRP | 2 | T.O.O.H. FOR BHA CHANGE, RAN BACK THROUGH SIDE TRACK, TOOL FACE |
| 9/23/2009 | 06:00 - 06:30 | 0.50 | TRP | 10 | AT 225. TRIP OUT OF HOLE FOR BIT AND MOTOR |
| 012312009 | 06:30 - 08:30 | | TRP | 1 | CHANGE OUT BIT AND MOTOR, ORIENT TOOLS |
| | 08:30 - 10:30 | 2.00 | | 1 | RIG SERVICE AND CHANGE OIL ON TOP DRIVE AND RIG |
| | 10:30 - 14:00 | | | 2 | TRIP IN THE HOLE WITH BIT #6(RR) |
| | 14:00 - 17:00 | | DRL | 2 | DIRECTIONAL DRILL F/7154' T/7156, ATTEMPT TO SLIDE, POSSIBLE |
| - | 14.00 - 17.00 | 0.00 | DILL | _ | DIFERENTIAL STICKING, LOSING MUD AT 6 BBLS/HR |
| | 17:00 - 18:00 | 1.00 | DRL | 2 | WASH AND REAM F/7141 T/7156 AND ATTEMPT TO BUILD A SLOT TO HELP |
| | 18:00 - 23:00 | E 00 | DRL | 2 | DROP ANGLE |
| | 10.00 - 23.00 | 5.00 | DKL | - | DIRECTIONAL DRILL (ROTATE) F/7156 T/ 7171 - 15' @ 15'/HR W/ 1-2 WOB |
| | | | | | (SLIDE) F/7171 T/7181 - 10' @ 2.8'/HR W/ 10-26 WOB (ROTATE) F/7181 T/7191 - 10' @ 60'/HR W/ 5 WOB |
| | 23:00 - 00:30 | 1 50 | CIRC | 5 | CIRCULATE LCM SWEEP AND CATCH SAMPLE |
| | 00:30 - 04:30 | I | | 2 | T.O.O.H. TO CHANGE BHA ASSEMBLY |
| | 04:30 - 06:00 | | TRP | 1 | CHANGE OUT MONELS, ORIENT TOOLS |
| 9/24/2009 | 06:00 - 07:30 | | TRP | 1 | LD BIT #7RR SMITH M609 S/N JX8113, PU SAME BIT; |
| | 07:30 - 11:00 | | | 2 | IT.I.H. |
| | 11:00 - 11:30 | | CIRC | 1 | BREAK CIRC AND ORIENT BIT |
| | 11:30 - 06:00 | 18.50 | | 2 | DIRECTIONAL DRLG:7191-7630. SLIDES: 7191-7202, 7248-7262, 7333-7351, |
|)/25/2009 | 06:00 - 09:00 | 3.00 | UBI | 2 | 7423-7430 |
| 71 201 20 08 | 00.00 - 09.00 | 3.00 | DKL | | DIRECTIONAL DRLG LATTERAL 7630-7690; SLIDES: 7658-7673; 3K-7K WOB SLIDING; 4K-5K WOB ROTATING; 35 RPM TOP DRIVE, 222 RPM MUD MTR, 257 RPM BIT; 143 GPM; |
| | | | | | |

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Operations Summary Report

Well Name: BRENNAN 6

Location: 19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date:

7/8/1971 Rig Release: 10/22/2009

Rig Number: 3

| ing maine. | DAOIN WE | LL OLIV | _ VIOL | | Tig Number. |
|------------|--------------------------------|---------|------------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 9/25/2009 | 09:00 - 09:30 | 0.50 | RIG | 1 | SERVICE RIG. CHK C.O.M. FUNCTION PIPE RAMS, ANNULAR; |
| | 09:30 - 13:00 | | DRL | 1 | DIRECTIONAL DRLG LATTERAL 7690-7753; SLIDES: 7690-7693, 7722-7738, 7751-7753; OUT OF TOP OF G1 LIMESTONE FORMATION AT 7743. |
| | 13:00 - 13:30 | 0.50 | CIRC | 5 | CIRC BTMS UP FOR SAMPLES |
| | 13:30 - 20:00 | 1 | DRL | 2 | DIRECTIONAL DRLG LATTERAL 7753-7848; SLIDES: 7753-7761, 7785-7805, |
| - | | | | | 7834-7848; DROP BACK INTO G1 LIMESTONE FORMATION AT 7814; |
| | 20:00 - 20:30 20:30 - 06:00 | 3 | RIG DRL | 1 2 | SERVICE RIG; DIRECTIONAL DRLG LATTERAL 7848-8075; SLIDES 7894-7914, 7943-7955, |
| | 20.30 - 06.00 | 9.50 | DRL | 2 | 7987-7997; |
| 0/00/000 | | | | | OUT BOTTOM OF G1 LIMESTONE AT 8040. |
| 9/26/2009 | 06:00 - 07:00 | 1.00 | DRL | 2 | DIRECTIONAL DRLG LATTERAL 8055-8064; 4K-5K WOB ROTATING; 35 RPM TOP DRIVE, 207 RPM MUD MTR, 242 RPM BIT; 133 GPM;2523 PSI PMP PRESS. |
| | | | | | STILL OUT BTM OF G1 LIMESTONE. |
| | 07:00 - 12:00 | 5.00 | TRP | 12 | PLANNED SHORT TRIP; DRLR PUT 20K WOB WHILE ROTATING - TWISTED |
| ı | | | | | SHAFT OFF IN MUD MTR PMP DRY PIPE PILL, T.O.O.H. FOR MUD MTR, GAMMA RAY TOOL. |
| | 12:00 - 13:30 | 1.50 | TRP | 1 | LD BIT 8RR (SMITH M609 S/N JX8113), C/O GAMMA RAY TOOLS, C/O MUD MTR |
| | | | | | (BICO FOR WENZEL). FUNCTION BLIND RAMS, ANNULAR. PU BIT 9 (SMITH M609 S/N JY3360) |
| | 13:30 - 14:00 | 0.50 | RIG | 1 | RIG SERVICE. |
| | 14:00 - 20:00 | 6.00 | TRP | 12 | T.I.H. TO 7802, BIT TAKING WEIGHT (TOP OF FORMATION RE-ENTRY POINT). |
| | 20:00 - 21:00 | 1.00 | TRP | 12 | WORK DRILL STRING TO 8032. BEGAN WASHING DOWN TO TD - HOLE |
| | | | | | FOUND IN MUD LINE. |
| | 21:00 - 22:30 | 1.50 | TRP | 13 | T.O.O.H. TO KICK OFF POINT CSG WINDOW. |
| | 22:30 - 23:30 | 1.00 | WOT | 4 | W.O. WELDER FOR REPAIRS TO MUD LINE. |
| | 23:30 - 03:00 | | RIG | 2 | WELDER TO REFABRICATE MUD LINE (CRACK IN CHICKSAN). |
| | 03:00 - 05:00 | 1 | TRP | 13 | T.I.H., WASH 64 FT TO BTM. |
| | 05:00 - 06:00 | 1.00 | DRL | 2 | DRLG 8064-8079. |
| | | | | | STILL OUT BTM OF G1 LIMESTONE. |
| 9/27/2009 | 06:00 - 15:00 | 9.00 | DRL | 2 | DIRECTIONALLY DRLG LATERAL SECTION 8079-8210; 4K-5K WOB ROTATING, #1 PMP X 91 SPM, 141 GPM, 2550 PSI PMP PRESS ROTATING; 219 RPM MUD |
| | | | | | MTR, 35 RPM TOP DRIVE, 253 RPM BIT ROTATING; 16-39 FPH ROP |
| | | | | | ROTATING; SLIDING 8105-8112, 8203-8210; 4K-6K SLIDING, #1 PMP X 90 SPM, |
| | | | | | 139 GPM, 2810 PSI PMP PRESS SLIDING, 218 RPM BIT/MTR SLIDING 4-11 FPH |
| | | | | | ROP SLIDING; GAMMA TOOLS QUIT FUNCTIONING AT 8199 FT. |
| | 45.00 45.00 | 0.50 | CIDO | | STILL OUT BTM OF G1 LIMESTONE, ATTEMPTING TO SLIDE UP. |
| | 15:00 - 15:30 | 0.50 | CIRC | 1 | CIRC HOLE PRIOR TO TRIP FOR DIRECTIONAL TOOL CHANGE OUT - PMP DRY PIPE PILL. |
| | 15:30 - 20:30 | 5.00 | TRP | 13 | T.O.O.H., C/O 1 JT DRILL PIPE BELOW HWDP - DAMAGED FACE, |
| | 20:30 - 23:30 | | TRP | 1 | PULL MWD / GAMMA TOOL. LD BIT #9 SMITH M609 SN JY3360, C/O MUD |
| | 20.50 - 25.50 | 3.00 | TIXE | ' | MOTORS; PU BIT #10 REED HYCALOG DSX111HGJ SN 108605; INSTALL NEW |
| | | | | | MWD / GAMMA TOOL AND ORIENT MUD MTR - MWD. SURF TEST MWD, |
| | | | | | SURF TEST MUD MTR; |
| | 23:30 - 00:00 | 0.50 | RIG | 1 | SERVICE RIG. |
| | 00:00 - 06:00 | | TRP | 13 | T.I.H. FILL PIPE AT 3918, 6174; |
| 9/28/2009 | 06:00 - 06:30 |] | TRP | 13 | T.I.H. AFTER GAMMA TOOL FAILURE, |
| 012012003 | 06:30 - 07:00 | 1 | RIG | 2 | RIG REPAIR - TIGHTEN KELLY HOSE. |
| | 07:00 - 09:30 | 3 | DRL | 2 | DIRECTIONAL DRLG LATTERAL SECTION 8210-8256, ROTATING 3K-5K WOB, |
| | 07.00 - 09.50 | 2.00 | DICE | _ | 30 RPM TOP DRIVE, 218 RPM MUD MTR, 248 RPM BIT, 20-30 FPH, #1 PMP X 90 |
| | | | | | SMP, 139 GPM, 2883 PSI PMP PRESS, STILL OUT BTM OF G1 LIMESTONE |
| | 09:30 - 10:00 | 0.50 | RIG | 1 | SERVICE RIG, FUNCTION PIPE RAMS. |
| | 10:00 - 21:00 | 11.00 | | 2 | DIRECTIONAL DRLG LATTERAL SECTION 8256-8368, ROTATING 4K-6K WOB, |
| | 10.00 - 21.00 | 11.00 | DIVE | _ | DINES HONAL DINES LATTEINAL SECTION 0200-0300, ROTATING 4N-0K WOB, |
| | | | | | |
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Operations Summary Report

Well Name: BRENNAN 6 Location: 19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date: 7/8/1971 Rig Release: 10/22/2009

Rig Number: 3

| Rig Name: | BASIN WEI | LL SERE | VICE | | Rig Number. 3 |
|-----------|--------------------------------|---------|-----------------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | |
| 9/28/2009 | 10:00 - 21:00 | 11.00 | DRL | 2 | 30 RPM TOP DRIVE, 222 RPM MUD MTR, 252 RPM BIT, 31-41 FPH, #1 PMP X 92 SMP, 142 GPM, 2580 PSI PMP PRESS, SLIDING 8266-8283, 8303-8314, 8334-8351, 8351-8368; SLIDING 8K-15K WOB, 218 RPM MUD MTR/BIT, 4-7 FPH, #1 PMP X 90 SPM, 139 GPM, 2527 PSI PMP |
| | | | | | PRESS. STILL OUT BTM OF G1 LIMESTONE, ATTEMPTING TO SLIDE UP. LOOSING ANY ANGLE GAINED ON SLIDES DURING ROTATION. |
| | 21:00 - 22:00 | 1.00 | CIRC | 5 | CIRC BTM HOLE SAMPLES UP FOR GEOLOGIC ANALYSIS (IN ZONE OR BELOW ZONE). PLAN TO SLIDE ONLY UNTIL INDICATIONS SUGGEST BACK INTO G1 LIMESTONE. |
| | 22:00 - 23:30 | 1.50 | DRL | 2 | DIRECTIONAL DRLG LATTERAL SECTION 8368-8383 SLIDING 8368-8383; SLIDING 10K-27K WOB, 218 RPM MUD MTR/BIT, 8-23 FPH, #1 PMP X 90 SPM, 139 GPM, 2580 PSI PMP PRESS. STILL OUT BTM OF G1 LIMESTONE, ATTEMPTING TO SLIDE UP. INCREASE IN |
| | 23:30 - 00:00 | 0.50 | CIRC | 5 | ROP AT 8378, GAMMA RAY DROPPING FROM 70-80 TO 55-65. CIRC BTM HOLE SAMPLES UP FOR GEOLOGIC ANALYSIS (IN ZONE OR BELOW ZONE). BACK IN G1 LIMESTONE AT 8380. |
| | 00:00 - 01:30 | 1.50 | REAM | 1 | PMP 20 BBL NUT PLUG SWEEP, WORK PIPE (ROTATING) THROUGH LAST |
| | 01:30 - 06:00 | 4.50 | DRL | 2 | DIRECTIONAL DRLG LATTERAL SECTION 8383-8433, ROTATING 8401-8411, 5K WOB, 30 RPM TOP DRIVE, 218 RPM MUD MTR, 248 RPM BIT, #1 PMP X 90 SPM, 139 GPM, 2744 PSI PMP PRESS, 21-31 FPH ROP; SLIDING 8383-8401, 8411-8433, 25K WOB, 220 RPM MUD MTR/BIT, #1 PMP X 91 |
| 9/29/2009 | 06:00 - 07:00 | 1.00 | DRL | 2 | SPM, 141 GPM, 2660 PSI PMP PRESS, 8-27 FPH ROP; DIRECTIONAL DRILL FROM 8433-8444 |
| 9/29/2009 | 07:00 - 10:00 | | CIRC | 7 | CIRCULATE SAMPLES, MIX AND PUMP DRY SLUG |
| | 10:00 - 11:00 | | TRP | 2 | TRIP TO 7932 TO RECALIBRATE GAMMA TOOL |
| | 11:00 - 13:00 | | DRL | 2 | DIRECTIONAL DRILL FROM 8444-8467. BIT SLOWED AND DECICION WAS MADE TO CIRCULATE SAMPLES |
| | 13:00 - 14:00 | 1.00 | CIRC | 7 | CIRCULATE SAMPLES-SAMPLES SHOWED WE ARE AT THE TOP OF PRODUCTION ZONE |
| | 14:00 - 17:30 | 3.50 | DRL | 2 | SLIDE DRILLING FROM 8467-8473. COULDN'T SLIDE, AFTER TALKING WITH CHRIS LONGWELL THE DECICION WAS MADE TO TRIP OUT AND MOVE AGITTATOR AND SHUFFLE PUSH PIPE. |
| | 17:30 - 21:30 | 4.00 | TRP | 2 | TRIP TO SHUFFLE PUSH PIPE, (2500 FT, 200 FT ABOVE CASING EXIT) AND MOVE AGITTATOR TO 1500 FT BACK |
| | 21:30 - 22:00 | 0.50 | RIG | 1 | RIG SERVICE |
| 1 | 22:00 - 03:30 | 1 | TRP | 2 | TRIP IN HOLE |
| | 03:30 - 06:00 | 2.50 | DRL | 2 | ATTEMPT TO ROTATE AND DRILL, PLAY WITH WEIGHT ON BIT, PUMP RATES AND TROUGH AWAY FROM HARD SPOT |
| 9/30/2009 | 06:00 - 09:00 | 3.00 | OTH | 1 | TROUGHING HOLE FROM 8458' T/8473 |
| 1 | 09:00 - 11:30 | 2.50 | DRL | 1 | DRILLING F/8473 T88474 1' |
| 1 | 11:30 - 12:00 | | CIRC | 1 | PUMP TRIP SLUG |
| 1 | 12:00 - 16:30 | l l | TRP | 10 | TRIP OUT OF HOLE FOR BIT, LAY DOW MOTOR AND MULE SHOE SUB |
| | 16:30 - 17:00 | | RIG | 1 | RIG SERVICE PICK UP MOTOR AND BIT #11, ORIENT TOOLS |
| | 17:00 - 19:30 | | 0 TRP | 1 | CUT DRILLING LINE |
| 1 | 19:30 - 20:30 | 1 | 0 RIG | 6 | TRIP IN HOLE WITH BIT #11, WASH 2 7785' |
| | 20:30 - 03:00 | į. | O TRP | 10 | WASH 90' TO BOTTOM, NO FILL |
| | 03:00 - 04:30 | | 0 REAM 0 DRL | 1 2 | DIRECTIONAL DRILL F/8474 T/8490 |
| 10/1/2009 | 04:30 - 06:00 06:00 - 12:00 | 1 | 0 DRL | 2 | DIRECTIONAL DRILL F/8490 T/8558 68' 11.3'/HR WOB 10/15 RPM 220/250 GPM 140 |
| | 12:00 - 12:30 | 0.5 | 0 CIRC | 1 | PUMP SWEEP (NUT PLUG) |
| | 12:00 - 12:30 | 0.5 | 0 CIRC | 1 | PUMP SWEEP (NUT PLUG) |

CONFIDENTIAL

Printed: 11/24/2009 3:39:53 PM

Operations Summary Report

Well Name: BRENNAN 6 Location:

19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date: 7/8/1971 Rig Release: 10/22/2009 Rig Number: 3

| 10/1/2009 12:36 13:30 13:30 03:36 04:00 05:36 10/2/2009 06:00 14:30 15:33 16:00 22:33 23:33 02:00 04:33 10/3/2009 06:00 09:03 12:00 14:33 15:33 12:00 10/3/2009 06:00 09:00 00 00:00 00 00 00:00 00 00 00 00 00 | om - To 30 - 13:00 30 - 03:30 30 - 03:30 30 - 05:30 30 - 06:00 30 - 14:00 30 - 14:00 30 - 15:30 30 - 16:00 30 - 22:30 30 - 22:30 30 - 23:30 30 - 06:00 30 - 03:00 30 - 03:00 30 - 04:30 30 - 06:00 30 - 07:00 30 - 09:30 30 - 15:30 30 - 15:30 30 - 15:30 30 - 06:00 30 - 07:00 30 - 07:00 30 - 07:00 30 - 07:00 30 - 07:00 30 - 07:00 30 - 07:00 30 - 07:00 30 - 07:30 | 8.00 0.50 1.00 0.50 6.50 1.00 2.50 1.50 1.50 2.00 0.50 | RIG DRL RIG RIG DRL DRL | Code 1 1 2 2 2 2 1 1 10 10 10 2 11 10 10 2 | Directional Drill F/8558 T/8570 12' 24'/HR RIG SERVICE DIRECTIONAL DRILL F/8570 T/8817 247' 17.6'/HR WOB 10/15 RPM 220/250 GPM 140 SET BACK 2 SATANDS CHANGE OUT SWIVLE PACKING DIRECTIONAL DRILL 8817-8825 DIRECTIONAL DRILL F/8825 T/8945 RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
|--|--|---|--|---|---|
| 13:00 13:30 13:30 13:30 04:00 05:30 10/2/2009 06:00 14:30 15:3 16:00 22:3 23:3 02:0 03:0 04:3 10/3/2009 06:0 09:0 14:3 15:3 10/4/2009 14:3 15:3 10/4/2009 15:0 16:0 00:0 00:3 00:0 15:0 16:0 00:0 00:3 00:0 00 | 00 - 13:30 30 - 03:30 30 - 03:30 30 - 05:30 30 - 05:30 30 - 06:00 00 - 14:00 00 - 14:30 30 - 15:30 30 - 16:00 00 - 22:30 30 - 22:30 30 - 06:00 00 - 07:00 00 - 09:00 00 - 09:30 30 - 14:30 30 - 15:30 30 - 15:30 30 - 15:30 30 - 06:00 00 - 07:30 | 0.50 14.00 0.50 1.50 0.50 8.00 0.50 1.00 2.50 1.00 2.50 1.50 2.50 2.50 2.50 2.50 | RIG DRL RIG RIG DRL DRL CIRC TRP TRP TRP TRP TRP TRP TRP RIG RIG RIG | 1 2 2 2 2 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 | RIG SERVICE DIRECTIONAL DRILL F/8570 T/8817 247' 17.6'/HR WOB 10/15 RPM 220/250 GPM 140 SET BACK 2 SATANDS CHANGE OUT SWIVLE PACKING DIRECTIONAL DRILL 8817-8825 DIRECTIONAL DRILL F/8825 T/8945 RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/2/2009 06:00 10/2/2009 06:00 14:00 14:30 15:33 16:00 22:33 23:33 02:00 04:33 10/3/2009 06:00 09:03 12:00 14:33 15:33 10:00 10/3/2009 06:00 09 | 30 - 03:30 30 - 04:00 30 - 05:30 30 - 06:00 30 - 14:00 30 - 15:30 30 - 16:00 30 - 22:30 30 - 23:30 30 - 23:30 30 - 23:30 30 - 06:00 30 - 07:00 30 - 09:00 30 - 09:30 30 - 12:00 30 - 12:00 30 - 14:30 30 - 15:30 30 - 06:00 30 - 07:30 | 14.00 0.50 1.50 0.50 8.00 0.50 1.00 0.50 1.00 2.50 1.50 1.50 2.50 2.50 2.50 1.00 | RIG RIG DRL DRL RIG DRL CIRC TRP TRP TRP TRP TRP TRP TRP RIG RIG RIG | 2 2 2 2 2 1 1 10 1 10 2 10 10 2 11 2 11 | DIRECTIONAL DRILL F/8570 T/8817 247' 17.6'/HR WOB 10/15 RPM 220/250 GPM 140 SET BACK 2 SATANDS CHANGE OUT SWIVLE PACKING DIRECTIONAL DRILL 8817-8825 DIRECTIONAL DRILL F/8825 T/8945 RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/2/2009 03:36 04:00 05:36 06:00 14:30 15:33 16:00 22:33 23:33 02:00 04:33 10/3/2009 06:00 09:03 11:00 14:33 15:33 12:00 14:33 15: | 30 - 04:00 30 - 05:30 30 - 06:00 30 - 14:00 30 - 14:30 30 - 15:30 30 - 22:30 30 - 22:30 30 - 23:30 30 - 02:00 30 - 03:00 30 - 06:00 30 - 09:00 30 - 12:00 30 - 12:00 30 - 14:30 30 - 15:30 30 - 06:00 30 - 06:00 30 - 06:00 30 - 07:30 | 0.50 1.50 0.50 8.00 0.50 1.00 0.50 1.00 2.50 1.50 1.50 2.00 0.50 2.50 | RIG RIG DRL DRL RIG DRL CIRC TRP TRP TRP TRP TRP TRP TRP RIG RIG RIG | 2 2 2 2 1 2 1 10 1 10 2 10 10 2 11 2 11 | WOB 10/15 RPM 220/250 GPM 140 SET BACK 2 SATANDS CHANGE OUT SWIVLE PACKING DIRECTIONAL DRILL 8817-8825 DIRECTIONAL DRILL F/8825 T/8945 RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
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| 10/2/2009 | 00 - 05:30 00 - 06:00 00 - 14:00 00 - 14:30 00 - 15:30 00 - 22:30 00 - 22:30 00 - 22:30 00 - 03:00 00 - 03:00 00 - 04:30 00 - 06:00 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 1.50 0.50 8.00 0.50 1.00 0.50 6.50 1.00 2.50 1.50 1.50 2.00 0.50 2.50 | RIG DRL DRL RIG DRL CIRC TRP TRP TRP TRP TRP TRP RIG RIG TRP | 2 2 2 1 2 1 10 1 10 2 10 10 2 10 10 2 | CHANGE OUT SWIVLE PACKING DIRECTIONAL DRILL 8817-8825 DIRECTIONAL DRILL F/8825 T/8945 RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE, FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/2/2009 | 30 - 06:00 30 - 14:00 30 - 14:30 30 - 15:30 30 - 16:00 30 - 22:30 30 - 23:30 30 - 02:00 30 - 03:00 30 - 06:00 30 - 09:00 30 - 09:00 30 - 12:00 30 - 12:00 30 - 15:30 30 - 06:00 30 - 06:00 30 - 06:00 30 - 07:30 | 0.50 8.00 0.50 1.00 0.50 6.50 1.00 2.50 1.50 1.50 2.00 0.50 2.50 | DRL DRL RIG DRL CIRC TRP TRP TRP TRP TRP TRP OTH TRP RIG RIG TRP | 2 2 1 2 1 10 1 10 2 10 10 2 10 10 2 | DIRECTIONAL DRILL 8817-8825 DIRECTIONAL DRILL F/8825 T/8945 RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
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| 14:00 14:31 15:31 16:00 22:33 23:33 02:00 03:00 04:33 10/3/2009 06:00 09:03 12:00 14:33 15:33 10/4/2009 06:00 07:30 08:03 09:00 15:00 16:00 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:30 00:00 00:3 | 00 - 14:30 30 - 15:30 30 - 16:00 00 - 22:30 30 - 23:30 30 - 02:00 00 - 03:00 00 - 04:30 30 - 06:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 0.50 1.00 0.50 6.50 1.00 2.50 1.50 1.50 2.00 0.50 2.50 2.50 | RIG DRL CIRC TRP TRP TRP OTH TRP TRP RIG RIG TRP | 1 2 1 10 1 10 2 10 10 2 10 10 2 | RIG SERVICE DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE, FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 14:3 15:3 16:0 22:3 23:3 02:0 03:0 04:3 10/3/2009 06:0 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 08:3 09:0 15:0 16:0 00:0 00:3 11:0 10/5/2009 06:0 03:3 10/5/2009 06:0 | 80 - 15:30 80 - 16:00 90 - 22:30 80 - 23:30 80 - 23:30 90 - 03:00 90 - 04:30 90 - 07:00 90 - 09:00 90 - 09:30 90 - 14:30 90 - 14:30 90 - 15:30 90 - 06:00 90 - 07:30 | 1.00 0.50 6.50 1.00 2.50 1.50 1.50 2.00 0.50 2.50 2.50 | DRL CIRC TRP TRP TRP TRP OTH TRP TRP RIG RIG TRP | 2 1 10 1 10 2 10 10 2 10 | DIRECTIONAL DRILL F/8945 T/8971 CIRCULATE, PUMP TRIP SLUG TRIP OUT OF HOLE WITH BIT #11 CHANGE OUT BIT, CHECK MWD TRIP IN HOLE WITH BIT #12- PIPE PLUGGED @ 2835' TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE, FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
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| 23:3 02:0 03:0 04:3 10/3/2009 06:0 07:0 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 10/5/2009 06:0 08:3 | 30 - 02:00 00 - 03:00 00 - 04:30 30 - 06:00 00 - 07:00 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 2.50 1.00 1.50 1.50 1.00 2.00 0.50 2.50 2.50 | TRP TRP OTH TRP TRP RIG RIG TRP | 10 10 2 1 | TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/3/2009 06:0 07:0 09:0 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 10/5/2009 06:0 08:3 | 00 - 03:00 00 - 04:30 30 - 06:00 00 - 07:00 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 1.00 1.50 1.50 1.00 2.00 0.50 2.50 2.50 | TRP OTH TRP TRP RIG RIG TRP | 10 10 2 1 | TRIP OUT OF HOLE WET TO 1641'- SHOCK SUB AND AGITATOR PLUGED. UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/3/2009 06:0 07:0 09:0 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 10/5/2009 06:0 08:3 | 00 - 04:30 30 - 06:00 00 - 07:00 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 1.50 1.50 1.00 2.00 0.50 2.50 2.50 | OTH TRP TRP RIG RIG TRP | 10 10 2 1 | UNPLUG SHOCK SUB AND WAIT ON AGITATOR TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/3/2009 06:0 07:0 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 09:0 15:0 16:0 00:0 00:3 10/5/2009 06:0 08:3 | 30 - 06:00 00 - 07:00 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 1.50 1.00 2.00 0.50 2.50 2.50 | TRP TRP RIG RIG TRP | 10 2 1 | TRIP IN HOLE WITH BIT #12 TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 10/3/2009 | 00 - 07:00 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 1.00 2.00 0.50 2.50 2.50 | TRP RIG RIG TRP | 10 2 1 | TRIP IN HOLE , FILL EVERY 10 STANDS WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 07:0 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 00 - 09:00 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 2.00 0.50 2.50 2.50 | RIG RIG TRP | 2 | WORK ON DAPTECH(CROWN SAVER) SYSTEM AND BRAKES RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 09:0 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 00 - 09:30 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 0.50 2.50 2.50 1.00 | RIG TRP | 1 | RIG SERVICE, CHANGE OIL IN TOP DRIVE |
| 09:3 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 30 - 12:00 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 2.50 2.50 1.00 | TRP | t . | |
| 12:0 14:3 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 00 - 14:30 30 - 15:30 30 - 06:00 00 - 07:30 | 2.50 1.00 | | 1.0 | TRIP IN HOLE, FILL EVERY 10 STANDS |
| 14:3 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 30 - 15:30 30 - 06:00 00 - 07:30 | 1.00 | 200 | 2 | DIRECTIONAL DRILL F/8971 T/9017 46' 23.0'/HR |
| 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 30 - 06:00 00 - 07:30 | l . | I | | WOB 12/14 RPM 240 GPM 136 MTR BEND=1.6 |
| 15:3 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 30 - 06:00 00 - 07:30 | l . | CIPC | 1 | CIRCULATE SWEEP AROUND AND WORK HOLE TO SLIDE |
| 10/4/2009 06:0 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 00 - 07:30 | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | l . | 2 | DIRECTIONAL DRILL F/9017 T/9285 |
| 07:3 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | | 1 | 1 | 2 | DIRECTIONAL DRILL F/9285 T/9311 |
| 08:0 08:3 09:0 15:0 16:0 00:0 00:3 03:0 03:3 10/5/2009 06:0 08:3 | | | DRL | 1 | CIRCULATE BOTTOMS UP TO CATCH SAMPLES |
| 08:3 09:0 15:0 16:0 00:0 00:3 03:0 10/5/2009 06:0 08:3 | 30 - 08:00 | 1 | CIRC | | DIRECTIONAL DRILL F/9311 T/9315 |
| 09:0 15:0 16:0 00:0 00:3 03:0 03:3 10/5/2009 06:0 08:3 | 00 - 08:30 | | DRL | 2 | |
| 15:0 16:0 00:0 00:3 03:0 03:3 10/5/2009 06:0 08:3 | 30 - 09:00 | | RIG | 1 | RIG SERVICE DIRECTIONAL DRILL F/9315 T/9485 170' 28.3'/HR |
| 16:0 00:0 00:3 03:0 03:3 10/5/2009 06:0 08:3 | 00 - 15:00 | 6.00 | DRL | 2 | |
| 16:0 00:0 00:3 03:0 03:3 10/5/2009 06:0 08:3 | | | | | WOB 14/15 RPM 240 GOM 136 |
| 00:0 00:3 03:0 03:0 10/5/2009 06:0 08:3 | 00 - 16:00 | 1 | OTH | | WORK ON GAMMA AND MWD TOOLS DIRECTIONAL DRILL F/9485 T/9593 108' 13.5'/HR |
| 00:3 03:0 03:3 10/5/2009 06:0 08:3 | 00:00 - 00 | | DRL | 2 | |
| 03:0 03:3 10/5/2009 06:0 08:3 | 00 - 00:30 | | CIRC | 1 | PUMP TRIP SLUG |
| 10/5/2009 03:3 06:0 08:3 | 30 - 03:00 | | TRP | 10 | TRIP OUT OF HOLE FOR BIT |
| 10/5/2009 06:0 08:3 | 00 - 03:30 | | RIG | 1 | RIG SERVICE |
| 08:3 | 30 - 06:00 | 1 | TRP | 10 | TRIP OUT OF HOLE FOR BIT |
| l } | 00 - 08:30 | | TRP | 1 | CHANGE OUT BIT AND MOTOR, ORIENT AND TEST TOOLS |
| 14.0 | 30 - 14:00 | | TRP | 10 | TRIP IN HOLE WITH BIT #13 |
| 117. | 00 - 17:00 | | REAM | 1 | WASH AND REAM F/9139 T/9593 (454') |
| 17:0 | 00:00 - 00:00 | | DRL | 1 | DRILLING F/9593 T/9877 |
| 10/6/2009 06:0 | :00 - 10:00 | 4.00 | DRL | 2 | DIRECTIONAL DRILL IN LATERAL WITH 1.56 R/GAL, 1.6 DEG BEND MOTOR. 9871-9956 |
| 10:0 | :00 - 10:30 | 0.50 | RIG | 1 | RIG SERVICE |
| l l | 30 - 11:30 | 1.00 | DRL | 2 | DIRECTIONAL DRILLING, 9956-9990 |
| l . | :30 - 12:00 | 0.50 | ОТН | | WORK ON MWD |
| 1 | :00 - 21:00 | 1 | DRL | 2 | DIRECTIONAL DRILLING-9990-10255 |
| | :00 - 22:00 | 1 | CIRC | 1 | CIRCULATE AND CONDITION FOR SHORT TRIP |
| | :00 - 02:00 | | TRP | 14 | SHORT TRIP TO 9700 FT, REAM BACK IN HOLE |
| 1 | :00 - 04:00 | 1 | CIRC | 1 | CIRCULATE AND CONDITION FOR CASING |
| | :00 - 06:00 | | TRP | 2 | TRIP OUT FOR CASING |
| 1 | :00 - 10:30 | | TRP | 2 | TRIP OUT TO RUN 3.5 LINER |
| | :30 - 12:00 | | TRP | 1 | ID DIRECTIONAL TOOLS |
| 10:. | .Ju - 12.UU | 1,30 | | | CONFIDENTIAL |

Operations Summary Report

Well Name: BRENNAN 6 Location:

19- 7-S 21-E 26

Spud Date:

7/8/1971

Rig Release: 10/22/2009 Rig Number: 3

| Rig iname | BASIN WE | LL SERE | EVICE | | Rig Number: 3 |
|-----------|---------------|---------|-------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 10/7/2009 | 12:00 - 14:30 | 2.50 | CSG | 1 | HOLD SAFWTY MEETING X 2 AND RIG UP CASING CREW |
| | 14:30 - 19:00 | | CSG | 4 | RUN 3.5 LINER |
| | 19:00 - 20:00 | | CSG | 1 | RIG DOWN CASING CREW |
| | 20:00 - 23:00 | | CSG | 4 | TRIP IN WITH AND HANG LINER, HANGER TOP AT 6114, LINER LANDED AT |
| | 20.00 - 25.00 | 5.00 | 000 | | 10080, TOP OF PERFORATIONS AT 6833 |
| | 23:00 - 00:00 | 1.00 | CSG | 1 | RIG UP LAY DOWN CREW |
| | 00:00 - 04:30 | | TRP | 3 | LAY DOWN DRILL PIPE |
| | 04:30 - 05:00 | 0.50 | RIG | 1 | RIG SERVICE |
| | 05:00 - 06:00 | | TRP | 3 | LAY DOWN DRILL PIPE |
| 0/8/2009 | 06:00 - 09:00 | | TRP | 3 | LAY DOWN DRILL STRING |
| 0/0/2009 | 09:00 - 12:00 | | DEQ | 1 | SET RETRIEVABLE WEATHERFORD BRIDGE PLUG AT 5590 WITH WARRIOR |
| | 09.00 - 12.00 | 3.00 | DLQ | 1 | WIRE LINE SERVICE |
| | 12:00 - 14:00 | 2.00 | ВОР | 1 | NIPPLE DOWN BOPE AND CLEAN MUD TANKS |
| | 14:00 - 06:00 | 16.00 | LOC | 4 | RIG RELEASED AT 14:00 HRS ON 10/7/2009 RIG DOWN AND PREPARE FOR TRUCKS |
| | 14,00 - 06.00 | 10.00 | LOC | 4 | NIG DOWN AND FREFARE FOR TROOKS |
| | | | | | |
| | | | | No. | |
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Page 1 of 3

Operations Summary Report COMPLETION

Well Name: BRENNAN 6 Location:

19-7-S 21-E 26

Spud Date:

7/8/1971

Rig Release: 10/22/2009

| Rig Name: | BASIN WE | | EVICE | | Rig Release: 10/22/2009 Rig Number: 3 |
|------------|---------------|-------|-------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 10/13/2009 | 06:00 - 16:00 | 10.00 | ВОР | 1 | "TIGHT HOLE": Initial report of completion On 10/12/2009 MIRU Basin WS #3 to start completion of B-1 lime horizontal drilled section. NDWH and NU BOP's Tally and rabbit in the hole with a 4-3/4" rock bit, 5-1/2" csg.scraper and 2-7/8" work string to 1000'. Circ.out drilling mud with 2% KCL water. Repeat same process at 2000' and 3015'. Circ.hole clean at 3000' and SIFN. On 10/13/09 will continue to tally and rabbit in th hole and circulate out drilling mud to ret.BP Aand then POOH with bit and scraper and RIH with ret.head for RBP. Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| 10/14/2009 | 06:00 - 16:00 | 10.00 | LOC | 2 | "TIGHT HOLE": On 10/13/09 SICP and SITP=0#. Continue to tally and rabbit in the hole with bit and scraper and 2 7/8" tbgCirculate out drilling mud with 2% KCL water at 4000', 5000' and tag RBP at 5566' (tbg.measurement) and circ.hole clean. POOH with bit and scraper. RIH with ret.head and tbg.and tag RBP at 5566 and latch onto plug and release plug and POOH with RBP and tbgChange over equipment for 2-3/8" tbgTally and rabbit in the hole with 1990' of 2-3/8" tbgSIFN. On 10/14/09 will continue to RIH with 2-3/8" and 2-7/8" tbg.and attempt to clean out 3-1/2" cased hole lateral. Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| 10/15/2009 | 06:00 - 16:00 | 10.00 | LOC | 2 | "TIGHT HOLE": On 10/14/2009 SITP and SICP =slight vacuum. Continue to tally and rabbit in the hole with 2-3/8" hydril tbg.and 2-7/8" tbg. (4014' of hydril tbg.) and circ.out drilling mud at the following depths witth 2% KCL water. 6584'; 7604'; 8633'; 9655'; 9840' and tag PBTD at 10087' (tbg.measurment) and circulate hole clean with 2% KCL water. Pull end of 2-3/8" tbg.to 10060'. SIFN. On 10/15/09 will acidize 3-1/2" cased hole lateral. Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| 10/16/2009 | 06:00 - 16:00 | 10.00 | STIM | | "TIGHT HOLE": On AM of 10/15/09 SITP and SICP=slight vacuum. MIRU Superior Services and acidize the slotted 3-1/2" production liner in 7 stages as follows: On each stage the csg.was left open to spot acid at the end of the tbg.and then the csg.was closed during the acid stages into the formation and the acid was flushed to the end of the tbg Stage#1: Tbg tail at 10060'. Pump 5000 gal of 15% HCL and flush with 40 bbl.of 2% KCL water and 10 bbl of 10# brine. Avg.of 2600#; Ave.rate=5 BPM: ISIP=700#. Total load of 169 bbl Stage#2: Tbg.tail at 9779'. Pump 5000 gal.of 15% HCL and flush with 39 bbl.of 2% KCL and 10 bbl.of brine water. ISIP=936#; Ave=3900#. Ave.rate=6.2 BPM; Total load of 168 bbl Stage#3: Tbg.tail at 9112'. Pump 5000 gal.of 15% HCL and flush with 34 bbl.of 2% KCL and 10 bbl.of brine water. ISIP=972#. Ave.rate-6.3 BPM; Ave.psi=3900#. Total load of 163 bbl. State# 4: Tbg.tail at 8537'. Pump 5000 gal.of 15% HCL and flush with 32 bbl.of 2% |

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Operations Summary Report

Well Name: BRENNAN 6

Location: 19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date:

7/8/1971

Rig Release: 10/22/2009 Rig Number: 3

| rig Ivaille. | DASIN WE | LL SEKI | EVICE | | Rig Number: 3 |
|--------------|---------------|---------|-------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 10/16/2009 | 06:00 - 16:00 | 10.00 | STIM | 1 | KCL and 20 bbl.of brine water. ISIP=776#. Ave.rate=6.3 BPM. Ave.psi=3458#. Total load of 171 bbl. Stage#5: Tbg,tail at 7955'. Pump 5000 gal.of 15% HCL acid and flush with 13 bbl.of 2% KCL and 25 bbl.of brine. ISIP=715#, Ave.rate=6.1BPM Ave.psi=3140#. Total load of 157 bbl Stage#6: Tbg.tail at 7412'; Pump 5000 gal.of 15% HCL and flush with 10 bbl.of 2% KCL and 25 bbl.of brine. ISIP=673#. Ave.rate=6.2 BPM. Ave.psi 3065#. Total load of 163 bbl Stage#7: Tbg.tail at 6994'. Pump 4500 gal.of 15% HCL and flush with 32.bbl.of.of 2% KCL water. ISIP=911#. Ave.rate=6.4 BPM. Ave.psi=3273#. Total load of 141 bblSI the well and RDMO Superior Services. NOTE: Acidized all stages thru a string of approx. 4000' of 2=3/8" tbg.on bottom and the remainder was 2-7/8" tbgRecovered an est.200 bbl.of fluid during flow back of csg. while bleeding off well between stages and pumped a total of 1132 bbl.leaving an est.932 bbl.of load to recover. On AM of 10/16/09 SITP=vacuum and SICP=100#. |
| 10/19/2009 | 06:00 - 16:00 | 10.00 | EQT | 4 | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD LLTR: 932 "TIGHT HOLE": On 10/16/09 SITP=vacuum and SICP=100#. Bled off csg. with no flud recovery. RIH with 97 jts.of tbg.thru the 3-1/2" liner and tag PBTD at 1087'. No obstructions in the 3-1/2" liner. POOH and stand back the 2-7/8" tbg.and lay down the 2-3/8" Hyd-ril. RIH with 2-7/8" work stirng tbg.to 6108' with the SN at 6074' and SIFW. On 10/19/09 will swab test. |
| | | | | | On AM of 10/19/09 SITP =200# and SICP=0#. Bled off tbg.with no fluid recovery. RU swab. IFL at 700'. RIH with swab to 1500' and recoverd 800' (4-1/2 bbl.without shrinkage) of 100% oil. Continue to swab. Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| 10/20/2009 | 06:00 - 16:00 | 10.00 | SWAB | 1 | LLTR: 932 Horizontal Lateral On 10/19/09 SITP = 200# & SICP = 0#. Bled off tbg w/ no fluid recovery. RU swab. IFL @ 700'. Make 2 runs & recovered 10-1/2 bbls of 100% oil (without shrinkage) & saw water on run #3. Make a total of 7 runs & recovered a total of 19 bbls of oil (without shrinkage) and a total of 19 bbls of water w/ a PH = 0. Had swabbed tbg down to max of 1800' while pulling f/ 3000' when the fluid level started to rise w/ a final FFL @ 600' & tbg started to flow. Flow tbg for 1/2 hour at 25# wide open & recovered an additional 30 bbls of oil w/ no water w/ lite gas. Ran out of tank room. Try to establish circulation w/ 120 bbls of 2% KCL water down the csg w/ no returns. Pump 20 bbls of 2% KCL water down the tbg & well dead. POOH & lay down 2-7/8" work string. SIFN. |
| | | | | | 24 Hour Forecast: Will run production string. LLTR: 1053 bbls Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| | | | | | |

Operations Summary Report

Well Name: BRENNAN 6 Location:

19- 7-S 21-E 26

Rig Name: BASIN WELL SEREVICE

Spud Date:

7/8/1971

Rig Release: 10/22/2009 Rig Number: 3

| Rig Name: | BASIN WEI | LL SERE | EVICE | | Rig Number: 3 |
|--------------------------|--------------------------------|----------------|-------------|-------------|---|
| Date | From - To | Hours | Code | Sub Code | Description of Operations |
| 10/20/2009 10/21/2009 | 06:00 - 16:00 06:00 - 16:00 | 10.00 10.00 | SWAB BOP | 1 | Horizontal Lateral On 10/20/09- SICP = 0#. Pump 20 bbls of 2% KCL water down the csg. RIH w/ production string as follows: Rabbit & tally in the hole w/ the following 2-7/8" tbg; Barred NC; 1 jt; SN; B-2 anchor catcher; 192 jts of tbg to surface. The tbg is the original tbg string that was in the well previously. All tbg is 2-7/8" EUE 8rd J-55 6.5#. ND BOP's. Set tbg anchor w/ 14M# tension @ 6064'. SN @ 6067' & Tbg Tail @ 6100'. NUWH. 24 Hour Forecast: Will run rods. LLTR: 1073 bbls Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| 10/22/2009 | 06:00 - 16:00 | 10.00 | LOC | 4 | Horizontal Lateral On 10/21/09 SITP & SICP = 10#. Bled off. Flush tbg w/ hot oiler using 60 bbls of snake oil. Prime & test new pump @ surface. RIH w/ pump & rods (listed below). Seat pump & fill tbg w/ 5 bbls of water & long stroke pump in 800# & held OK. Space out pump w/ 18" f/ tag & 6' of polish rod left out. Clamp off rods. RDMO Basin WS. Turn well over to production department. Final report of lateral G-1 Completion. LLTR: 1133 bbls Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD Perfs: 3-1/2" slotted liner 9.3# from 6114' to 10078' Tbg Detail: KB = 16' Stretch = 1.30' 192 jts tbg = 6047.40' B-2 AC = 2.77' SN = 1.14' 1 Jt tbg = 31.69' Barred NC = 0.44 Tbg Tail @ 6100.74' SN @ 6067.47'; AC @ 6064.70' w/ 14M# tension. All tbg is used 2-7/8" EUE 8rd 6.5# J-55. Rod & Pump Detail: Pump: 2-1/2"x1-3/4"x20'x23'x24' RHAC Weatherford w/ max stroke = 209" Pump #2520 100 - 3/4" rods; 75 - 7/8" rods; 66 - 1" rods; no pony rods. 1-1/2" x 30' polish rod. All rods are Class "D" reconditioned. |
| - | | | | | COMEINEMENT |

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TOTS Rair S=19 43-047-30109

Questar E & P Page 1 of 2 Daily Completion Workover Report Well Name: **BRENNAN 6** Date: 10/13/2009 Report: **Event Name:** COMPLETION Start: 10/13/2009 End: 10/21/2009 **General Information** Location: 19-7-S 21-E 26 Offshore: Block: Country: **UNITED STATES** Slot: State/Prov: **UTAH** Spud Date: 7/8/1971 County: **UINTAH** Well Type: **FLOWING OIL** Field: **BRENNAN BOTTOM** Well Status: FINAL COMPLETION Summary Information **Daily Cost:** 12,300 JIM SIMONTON Supervisor. Final Report: N Cum. Cost: 12,300.00 Engineer: MIKE STAHL AFE #: 32211 Pool: AFE Cost: 202,600 Zone: interval: Daily Fluids Daily Oil Hauled On: Cum: Oil in Surface Tanks: Daily H2O Hauled On: Cum: H2O in Surface Tanks: Daily Other Hauled On: Cum: Other in Surface Tanks: Daily Oil Hauled Off: Cum: Oil Remaining to Recover: Daily H2O Hauled Off: Cum: H2O Remaining to Recover: Daily Other Hauled Off: Cum: Other Remaining to Recover: Non Recoverable Annular Oil: Cum: Non Recoverable Annular H2O: Cum: Non Recoverable Annular Other: Cum: Safety Information RECEIVED Daily Inspection: Loss Control Incident: **BOP Drill:** Ν Weather Conditions: MAY 1 1 2010 Safety Meeting: N Gov't Inspection: N DIV. OF OIL, GAS & MINING Last Casing Size: (in) Grade: Last Casing Weight: (lb/ft) LOT EMW: (ppg) Set TMD: (ft) **Operations Summary** From To Hours Code Subcode Code 2 Phase Description 06:00 16:00 10.00 BOP "TIGHT HOLE": Initial report of completion On 10/12/2009 MIRU Basin WS #3 to start completion of B-1 lime horizontal drilled section. NDWH and NU BOP's Tally and rabbit in the hole with a 4-3/4" rock bit, 5-1/2" csg.scraper and 2-7/8" work string to 1000'. Circ.out drilling mud with 2% KCL water. Repeat same process at

Page 2 of 2

Daily Completion Workover Report

 Well Name:
 BRENNAN 6
 Date:
 10/13/2009 Report:
 1
 DOL: 1.00

 Event Name:
 COMPLETION
 Start:
 10/13/2009 End:
 10/21/2009

Operations Summary

| From | To | Hours | Code | Subcode | Code 2 | Phase | Description |
|-------|-------|-------|------|---------|--------|-------|--|
| 06:00 | 16:00 | 10.00 | ВОР | 1 | P | | 2000' and 3015'. Circ.hole clean at 3000' and SIFN. On 10/13/09 will continue to tally and rabbit in th hole and circulate out drilling mud to ret.BP Aand then POOH with bit and scraper and RIH with ret.head for RBP. |
| | | | | | | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |

Current Status; Initial report of completion.

24hr Summary:

24hr Forecast: will continue to tally and rabbit in the hole and circulate

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Questar E & P Page 1 of 2 **Daily Completion Workover Report** Well Name: **BRENNAN 6** Date: 10/14/2009 Report: Event Name: COMPLETION Start: 10/13/2009 End: 10/21/2009 General Information Location: 19-7-S 21-E 26 Offshore: Block: Country: **UNITED STATES** Slot: Spud Date: State/Prov: 7/8/1971 UTAH County: **UINTAH** Well Type: FLOWING OIL Field: **BRENNAN BOTTOM** Well Status: FINAL COMPLETION **Summary Information** Daily Cost: 9.800 Supervisor: JIM SIMONTON Final Report: N MIKE STAHL Cum. Cost: 22,100.00 Engineer: AFE #: 32211 Pool: AFE Cost: 202,600 Zone: Interval: **Daily Fluids** Daily Oil Hauled On: Cum: Oil in Surface Tanks: Daily H2O Hauled On: Cum: H2O in Surface Tanks: Daily Other Hauled On: Cum: Other in Surface Tanks: Daily Oil Hauled Off: Cum: Oil Remaining to Recover: Dally H2O Hauled Off: Cum: H2O Remaining to Recover: Daily Other Hauled Off: Cum: Other Remaining to Recover: Cum: Non Recoverable Annular Oil: Non Recoverable Annular H2O: Cum: Non Recoverable Annular Other: Cum: Safety Information Daily Inspection: Loss Control Incident: BOP Drill: Weather Conditions: Safety Meeting: Ν Gov't Inspection: Ν Last Casing Size: (in). Grade: Last Casing Weight: (lb/ft) LOT EMW: (ppg) Set TMD: (ft) **Operations Summary** From To Hours Code Subcode Code 2 Phase Description 06:00 2 P 16:00 10.00 LOC "TIGHT HOLE": On 10/13/09 SICP and SITP=0#. Continue to tally and rabbit in the hole with bit and scraper and 2 7/8" tbg....Circulate out drilling mud with 2% KCL water at 4000', 5000' and tag RBP at 5566' (tbg.measurement) and circ.hole clean. POOH with bit and scraper. RIH with ret.head and tog.and tag RBP at 5566 and latch onto plug and release plug and POOH with RBP and tbg..Change over equipment for 2-3/8" tbg..Tally and rabbit

Page 2 of 2

Daily Completion Workover Report

Well Name: BRENNAN 6

Date: 10/14/2009 Report:

: 2

DOL: 2.00

Event Name: COMPLETION

Start: 10/13/2009 End:

10/21/2009

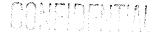
Operations Summary

| From | То | Hours | Code | Subcode | Code 2 | Phase | Description |
|-------|-------|-------|------|---------|--------|-------|---|
| 06:00 | 16:00 | 10.00 | LOC | 2 | P | | in the hole with 1990' of 2-3/8" tbgSIFN. On 10/14/09 will continue to RIH with 2-3/8" and 2-7/8" tbg.and attempt to clean out 3-1/2" cased hole lateral. |
| | | | | | | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |

Current Status: Continue to tally and rabbit in the hole with bit and scraper.

24hr Summary:

24hr Forecast: attempt to clean out 3-1/2" cased hole lateral.



Questar E & P Page 1 of 2 **Daily Completion Workover Report** 10/15/2009 Report: Well Name: **BRENNAN 6** Date: 10/21/2009 Start: 10/13/2009 End: **Event Name:** COMPLETION **General Information** Offshore: Block: Location: 19-7-S 21-E 26 Slot: **UNITED STATES** Country: State/Prov: **UTAH** Spud Date: 7/8/1971 UINTAH Well Type: FLOWING OIL County: Well Status: FINAL COMPLETION Field: **BRENNAN BOTTOM** Summary Information Final Report: N Daily Cost: 6,700 Supervisor: JIM SIMONTON Cum. Cost: Engineer: MIKE STAHL 28,800.00 Pool: AFE #: 32211 Zone: AFE Cost: 202,600 Interval: Daily Fluids Oil in Surface Tanks: Cum: Daily Oil Hauled On: H2O in Surface Tanks: Daily H2O Hauled On: Cum: Other in Surface Tanks: Cum: Daily Other Hauled On: Oil Remaining to Recover: Daily Oil Hauled Off: Cum: Daily H2O Hauled Off: H2O Remaining to Recover: Cum: Cum: Other Remaining to Recover: Daily Other Hauled Off: Cum: Non Recoverable Annular Oil: Non Recoverable Annular H2O: Cum: Cum: Non Recoverable Annular Other: Safety Information Daily Inspection: Loss Control Incident: Weather Conditions: BOP Drill: N Safety Meeting: Ν Gov't Inspection: Ν Last-Casing-Size: (in) Grade: (lb/ft) LOT EMW: Last Casing Weight: (ppg) Set TMD: (ft) **Operations Summary** Code Subcode Code 2 Phase Description From To Hours 06:00 16:00 10.00 LOC 2 "TIGHT HOLE": On 10/14/2009 SITP and SICP =slight vacuum. Continue to tally and rabbit in the hole with 2-3/8" hydril tbg.and 2-7/8" tbg. (4014' of hydril tbg.) and circ.out drilling mud at the following depths witth 2% KCL water. 6584'; 7604'; 8633'; 9655'; 9840' and tag PBTD at 10087' (tbg.measurment) and circulate hole clean with 2% KCL water. Pull end of 2-3/8" tbg.to 10060'. SIFN. On 10/15/09 will acidize 3-1/2" cased hole

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Page 2 of 2

Daily Completion Workover Report

 Well Name:
 BRENNAN 6
 Date:
 10/15/2009 Report:
 3
 DOL: 3.00

 Event Name:
 COMPLETION
 Start:
 10/13/2009 End:
 10/21/2009

Operations Summary

| From | То | Hours | Code | Subcode | Code 2 | Phase | Description |
|-------|-------|-------|------|---------|--------|-------|---|
| 06:00 | 16:00 | 10.00 | LOC | 2 | P | | lateral. |
| | | | | | | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# |
| | | | | | | | Casing Depth: 3-1/2" to 10078' MD |
| | | | | | | | |

Current Status: On 10/14/2009 SITP and SICP=slight vacuum.

24hr Summary: 24hr Forecast:

| | | | | Daily | Com | | tar E & n Worl | kover F | Repor | t | Page 1 of |
|------------------------|--------------|------------------------|----------------|---------------|-----|----------------|----------------------|----------------------------------|---------------|-------------------------|---|
| Well Name Event Nam | | NNAN 6 IPLETION | | | | And And Co. | Date: Start: | 10/16/2009 10/13/2009 | | 4 10/21/2009 | DOL: 4.00 |
| | | | | | | General | Informat | ilon | | | |
| Location: | 19- | 7-S 21-E | 26 | 2.4747.10.24 | Ol | fshore: | N | <u>E. La gli Carrati partici</u> | V 188, (1887) | Block: | CONTRACTOR OF THE STATE OF THE |
| Country: | UNIT | ED STAT | ES | | | | | | | Slot: | |
| State/Prov: | UTA | Н | | | S | oud Date: | 7/8/197 | ′ 1 | | | |
| County: | UINT | AH | | | | ell Type: | FLOWI | NG OIL | | | |
| Field: | BRE | NNAN BO | TTOM | 3033461 30 en | W | ell Status: | FINAL | COMPLETIC |)N | Salara (Salara Salara) | Series West agreement against a comment of the series |
| | | | | | S | um ma r | y Informa | ıtlon | | | |
| Daily Cost: | 46,70 | 00 | | | Sı | pervisor: | JIM SIM | ONTON | | | Final Report: N |
| Cum. Cost: | 75,50 | 00.00 | | | Er | ngineer: | MIKE ST | AHL | | | |
| AFE#: | 3221 | 1 | | | Po | ool: | | | | | |
| AFE Cost: | 202,6 | 300 | | | Zo | ne: | | | | | |
| | endi trasser | akina a kii | 3 To 1 Service | | ini | terval: | 1 | THE P. LEWIS CO. | | | |
| | in De Col | | | | | Dall | y Fluids | | | | |
| Daily Oil Ha | uled Or | l: | <u> </u> | | Cı | Jm: | (".) . W. (1947 (1) | Oil in | Surface 1 | Γanks: | manually care of the property of the second |
| Daily H2O I | | | | | Ct | ım: | | H2Q | in Surface | Tanks: | |
| Daily Other | Hauled | On: | | | Cı | ım: | | Othe | r in Surfac | e Tanks: | |
| Daily Oil Ha | uled Of | f: | | | Cı | ım: | | Oil R | emaining | to Recover: | |
| Daily H2O I | lauled (| Off: | | | Çı | ım: | | H2O | Remainin | g to Recover: | |
| Daily Other | Hauled | Off: | | | Ct | ım: | | Othe | r Remaini | ng to Recover | |
| Non Recov | erable A | nnular Oil: | | | Cı | ım: | | | | | |
| Non Recov | erable A | nnular H2 | O: | | Cı | ım: | | | | | |
| Non Recov | erable A | nnular Oth | ier: | | Cı | ım: | | | | | |
| | | | | | | Safety | nformati | on | | | |
| Daily Inspe | ction: | | | | L | oss Contro | ol Incident: | | | | |
| BOP Drill: | | | | N | V | Veather Co | onditions: | | | | |
| Safety Mee | - | | | N | | | | | | | |
| Gov't inspe | ction: | | | N | | | | | | | |
| _ast Casing | Size: | | | (in) | G | irade: | | | | | |
| _ast Casing | | : | | (lb/ft) | | OT EMW: | (ppg) | | | | |
| Set TMD: | , | • | | (ft) | | O , | (644) | | | | |
| | | | | | | peratio | ns Sumn | nary | | | |
| From | Tó | Hours | Code | Subcode | | Phase | | | מ מ | escription | |
| | 6:00 | | STIM | 1 | Р | | raving field (LTA) | "TICHT | HOLE": | a a a confession (1997) | State (2011) - 1974 (Metric 19, 18) - 27 2 7 |
| /···· | 0.00 | 10.00 | וייין | ' | [| | On AM of 1 | | | Peglinht vacu | um. MIRU Superior |
| | | | | | | | | | | | on liner in 7 stages as |
| - | | | | | | } | ł . | | | • | o spot acid at the end of |
| | | | | | | | i . | - | | | acid stages into the |
| | | | | | | | | | | ed to the end o | |
| | | | 1 | I | ľ | | | | | | 15% HCL and flush with |

Page 2 of 2

Daily Completion Workover Report

Well Name: **BRENNAN 6** Date: 10/16/2009 Report:

DOL: 4.00

Event Name: COMPLETION

Start: 10/13/2009 End:

10/21/2009

Operations Summary

| From | То | Hours | Code | Subcode | Code 2. | Phase | Description |
|-----------------|-------|-------|------|--------------|---------|-------|---|
| From:: 08:00 | 16:00 | | STIM | Subcode 1 | Code 2 | Phase | Description: bbl.of 2% KCL water and 10 bbl of 10# brine. Avg.of 2600#; Ave.rate=5 BPM: ISIP=700#. Total load of 169 bbl Stage#2: Tbg.tail at 9779'. Pump 5000 gal.of 15% HCL and flush with 39 bbl.of 2% KCL and 10 bbl.of brine water. ISIP=936#; Ave=3900#. Ave.rate=6.2 BPM; Total load of 168 bbl Stage#3: Tbg.tail at 9112'. Pump 5000 gal.of 15% HCL and flush with 34 bbl.of 2% KCL and 10 bbl.of brine water. ISIP=972#. Ave.rate-6.3 BPM; Ave.psi=3900#. Total load of 163 bbl. State# 4: Tbg.tail at 8537'. Pump 5000 gal.of 15% HCL and flush with 32 bbl.of 2% KCL and 20 bbl.of brine water. ISIP=776#. Ave.rate=6.3 BPM. Ave.psi=3458#. Total load of 171 bbl. Stage#5: Tbg,tail at 7955'. Pump 5000 gal.of 15% HCL acid and flush with 13 bbl.of 2% KCL and 25 bbl.of brine. ISIP=715#, Ave.rate=6.1BPM Ave.psi=3140#. Total load of 157 bbl Stage#6: Tbg.tail at 7412'; Pump 5000 gal.of 15% HCL and flush with 10 bbl.of 2% KCL and 25 bbl.of brine. ISIP=673#. Ave.rate=6.2 BPM. Ave.psi 3065#. Total load of 163 bbl Stage#7: Tbg.tail at 6994'. Pump 4500 gal.of 15% HCL and flush with |
| | | | | | | | 32.bbl.of.of 2% KCL water. ISIP=911#. Ave.rate=6.4 BPM. Ave.psi=3273#. Total load of 141 bblSI the well and RDMO Superior Services. NOTE: Acidized all stages thru a string of approx. 4000' of 2=3/8" tbg.on bottom and the remainder was 2-7/8" tbgRecovered an est.200 bbl.of fluid during flow back of csg. while bleeding off well between stages and pumped a total of 1132 bbl.leaving an est.932 bbl.of load to recover. On AM of 10/16/09 SITP=vacuum and SICP=100#. Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| | | | | | | | LLTR: 932 |

Current Status: On AM of 10/15/09 SITP and SICP=slight vacuum.

24hr Summary:

24hr Forecast:

| | | | | | | Ques | tar E & | P | | Yuz Xi | Page 1 o |
|-------------------------------|--------------------|------------------|----------|---------|----------------------|----------------------------|---|--|--|---|--|
| | | | | Daily | Com | pletio | n Wor | kover F | lepor | t | |
| Well Name: Event Name | | NAN 6 PLETION | <u> </u> | | Se 1 1 2 3 2 3 4 4 4 | | Date: Start: | 10/19/2009 10/13/2009 | • | 5 10/21/2009 | DOL: 5.00 |
| | | | | | | General | Informat | ion | | | |
| ocation: | | S 21-E | | | O | ffshore: | N | Alexander of the second | A COMPLETE STATE OF THE STATE O | Block: | mara mereka da da kabang bagai Mer |
| Country: | | D STAT | ES | | | | 710110 | | | Slot: | |
| State/Prov: | UTAH UINTA | | | | | pud Date: | 7/8/197 | | | | |
| County: Field: | | vn NAN BO' | ттом | | | /ell Type: /ell Status: | FLOWI FINAL | NG OIL COMPLETIC | N | | |
| | | | | | | XX 44 M | y Informa | F64 5 79 2.50 | | | |
| Nation Control | 0.400 | | | | The State of | | | | | | |
| Daily Cost: Cum. Cost: | 9,400 84,900 | 0.00 | | | | upervisor: ngineer: | JIM SIMO | | | | Final Report: N |
| VIIII. 0031. VFE#: | 32211 | | | | | ool: | WIINE S | AHL | | | |
| FE Cost: | 202,60 | | | | | one: | | | | | |
| | | | | | | terval: | 1 | | | | |
| | | | | | | Dali | y Flui ds | | | | |
| Selly Oil Her | CONTROL Had One | | | | | | | 011 | | | |
| aily Oil Hau | | | | | | um: | | | Surface T | | |
| aily H2O Ha aily Other H | | | | | | um: um: | | | in Surface | | |
| aily Oillei i aily Oil Hau | | /II. | | | | um: | | | in Surfac | le Tanks: lo Recover: | |
| aily H2O H | | f· | | | _ | um: | | | _ | g to Recover: | |
| ally Other F | | | | | | um: | | | _ | ng to Recover: | |
| on Recover | | | | | | um: | | 5,1101 | 110/114/1/1 | .g to 11000101. | |
| lon Recover | able An | nular H20 | O: | | Ċ | um: | | | | | |
| lon Recovei | able An | nular Oth | ier: | | C | um: | | | | | |
| | | | | | | Safety | nformati | on | | | |
| Daily Inspect | ion: | | | | L | oss Contre | ol incident: | | | | |
| BOP Drill: | | | | N | \ | Veather Co | onditions: | | | | |
| afety Meetii | ng: | | | N | | | | | | | |
| Sov't Inspect | tion: | | | N | | | | | | | |
| ast Casing | Size [,] | | | (in) | • | erade: | | | | | |
| ast Casing \ | | | | (lb/ft) | | OT EMW: | (ppg) | | | | |
| et TMD: | • | | | (ft) | | | 1669 | | | | |
| | | | | | (|) peratio | ns Sumn | iary | | | |
| From | To · | Hours | Code | Subcode | | Phase | | | , | escription | |
| 6:00 16 | - 1 | 10.00 | | 4 | P | 7.1.000 | n, epsternety <u>(4.00 %)</u> | "TIGHT | | and inhiting a second | The state of the s |
| 0.00 | | 10.00 | EWI | 4 | F | | recovery. F 1087'. No o 2-7/8" tbg.a tbg.to 6108 | 9 SITP=vacu RIH with 97 jt bstructions in and lay down with the SN | um and S s.of tbg.th n the 3-1/2 the 2-3/8" at 6074' a | iru the 3-1/2" li 2" liner. POOI ' Hyd-ril. RIH ' and SIFW. Or | led off csg. with no flud iner and tag PBTD at H and stand back the with 2-7/8" work stirng n 10/19/09 will swab test Bled off tbg.with no fluid |

Page 2 of 2

Daily Completion Workover Report

 Well Name:
 BRENNAN 6
 Date:
 10/19/2009 Report:
 5
 DOL: 5.00

 Event Name:
 COMPLETION
 Start:
 10/13/2009 End:
 10/21/2009

Operations Summary

| From | To | Hours | Code | Subcode | Code 2 | Phase Description |
|-------|-------|-------|------|---------|--------|---|
| 06:00 | 16:00 | 10.00 | EQT | 4 | P | recovery. RU swab. IFL at 700'. RIH with swab to 1500' and recoverd 800' (4-1/2 bbl.without shrinkage) of 100% oil. Continue to swab. |
| | | | | | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| | | | | | | LLTR: 932 |

Current Status: On 10/16/09 SITP=vacuum and SICP=100#.

24hr Summary: 24hr Forecast:

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Questar E & P Page 1 of 2 Daily Completion Workover Report **BRENNAN 6** Well Name: Date: 10/20/2009 Report: DOL: 6.00 Event Name: COMPLETION Start: 10/13/2009 End: 10/21/2009 General Information Location: 19-7-S 21-E 26 Offshore: Block: Country: **UNITED STATES** Slot: State/Prov: UTAH Spud Date: 7/8/1971 County: **UINTAH** Well Type: FLOWING OIL Field: **BRENNAN BOTTOM** Well Status: FINAL COMPLETION **Summary Information** Daily Cost: 9,100 Supervisor: JIM SIMONTON Final Report: N Cum. Cost: 94,000.00 Engineer: MIKE STAHL AFE #: Pool: 32211 AFE Cost: 202,600 Zone: Interval: Daily Fluids Dally Oil Hauled On: Cum: Oil in Surface Tanks: H2O in Surface Tanks: Daily H2O Hauled On: Cum: Daily Other Hauled On: Cum: Other in Surface Tanks: Daily Oil Hauled Off: Cum: Oil Remaining to Recover: Daily H2O Hauled Off: Cum: H2O Remaining to Recover: Daily Other Hauled Off: Cum: Other Remaining to Recover: Non Recoverable Annular Oil: Cum: Non Recoverable Annular H2O: Cum: Non Recoverable Annular Other: Cum: Safety Information Daily Inspection: Loss Control Incident: BOP Drill: N Weather Conditions: Safety Meeting: Ν Gov't Inspection: Ν Last Casing Size: (in) Grade: (lb/ft) Last Casing Weight: LOT EMW: (ppg) Set TMD: (ft) **Operations Summary** From To Hours Code Subcode Code 2 Phase Description P 06:00 16:00 10.00 SWAB Horizontal Lateral On 10/19/09 SITP = 200# & SICP = 0#. Bled off tog w/ no fluid recovery. RU swab. IFL @ 700'. Make 2 runs & recovered 10-1/2 bbls of 100% oil (without shrinkage) & saw water on run #3. Make a total of 7 runs & recovered a total of 19 bbls of oil (without shrinkage) and a total of 19 bbls of water w/ a PH = 0. Had swabbed tbg down to max of 1800' while pulling f/ 3000' when the fluid level started to rise w/ a final FFL @ 600' &

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Page 2 of 2

Daily Completion Workover Report

Well Name: BRENNAN 6 Date: 10/20/2009 Report: 6 DOL: 6.00

Event Name: COMPLETION Start: 10/13/2009 End: 10/21/2009

Operations Summary

| From | To | Hours | Code | Subcode | Code 2 | Phase | Description |
|-------|-------|-------|------|---------|--------|-------|---|
| 06:00 | 16:00 | 10.00 | SWAB | 1 | p | | tbg started to flow. Flow tbg for 1/2 hour at 25# wide open & recovered an additional 30 bbls of oil w/ no water w/ lite gas. Ran out of tank room. Try to establish circulation w/ 120 bbls of 2% KCL water down the csg w/ no returns. Pump 20 bbls of 2% KCL water down the tbg & well dead. POOH & lay down 2-7/8" work string. SIFN. |
| | | | | [| | | 24 Hour Forecast: Will run production string. |
| | ļ | | | | | | LLTR; 1053 bbls |
| | | | | | | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| | | | | | • | | |

Current Status: SITP = 200# & SICP = 0#. Swab. IFL @ 700'. Flow tog for 1/2 hr @ 25# wide open & recovered an additional 30 bbls of oil w/ gas.

24hr Summary:

24hr Forecast: Will run production string.

| | | | | | | tar E & | | | | P | age 1 of |
|---------------------------|--------------------------------------|---------------------------------------|---|------------|-------------------|----------------------|------------------------|---|-----------------------------------|------------------------|--------------|
| | | | Daily | Con | pletio | n Wor | kover | Repor | t | | |
| Vell Name: Event Name: | BRENNAN 6 COMPLETION | | | | | Date: Start: | 10/21/200 10/13/200 | 9 Report: 9 End: | 7 10/21/2009 | DOL | .: 7.00 |
| | | | | | General | Informat | lion | | | | |
| .ocation: Country: | 19- 7-\$ 21-E UNITED STAT | | *************************************** | C | Offshore: | N | | *************************************** | Block: Slot: | | |
| State/Prov: | UTAH | L 3 | | 9 | pud Date: | 7/8/197 | 11 | | 3101. | | |
| County: | UINTAH | | | | Vell Type: | | NG OIL | | | | |
| ield: | BRENNAN BO | TTOM | | | Vell Status: | | COMPLET | ION | • | | |
| | | | | | Summar | / Informa | ition | | | | |
| Daily Cost: | 5,000 | i i i i i i i i i i i i i i i i i i i | gen and State of Contraction of | 5 | upervisor: | JIM SIMO | ONTON | | | Final Repor | t: N |
| Cum. Cost: | 99,000.00 | | | E | ngineer: | MIKE ST | AHL | | | | |
| \FE #: | 32211 | | | F | Pool: | | | | | | |
| FE Cost: | 202,600 | | | 2 | ione: | | | | | | |
| rangalah kacaman sa sa | | Z. 20 907.E 707 | o is the second | l 1 | nterval: | 1 | A | Si si si si si si si si si si si si si si | Construction and the construction | trus vice construction | |
| | | | | | Dail | y Fluids | | | | | |
| ally Oil Haul | ed On: | | (b | obl) C | um: | 0.00(bbl |) Oil | in Surface | Tanks: | | (bbl) |
| aily H2O Ha | uled On: | | (b | obl) C | ium: | 0.00(bbl |) H20 |) in Surfac | e Tanks: | | (bbl) |
| aily Other H | | | (8 | icf) C | Cum: | 0.00(scf | - | er in Surfac | | | (scf) |
| aily Oil Haul | | | (b | . , | ium: | 0.00(bbl | • | _ | to Recover: | | (bbl) |
| aily H2O Ha | | | (b | | Cum: | 0.00(bbl | - | | ig to Recover: | | (bbl) |
| aily Other H | | | • | | Cum: | 0.00(scf | - | er Remaini | ing to Recover: | | (bbl) |
| | able Annular Oil: | | 1 | | Cum: | 0.00(bbl | | | | | |
| | able Annular H29 able Annular Oth | | | | Cum: Cum: | 0.00(bbl 0.00(scf | | | | | |
| von Recovera | able Armular Ou | iei. | s) (1112/2012) | of) C | Jum. Alaskasia | 0.00(SCI |) Smilestii. | W.Your Co. W. | i James de La Carlos (1888). | reversion experience | VARWI. |
| | | | | | Safety | nformati | on | | | | |
| Daily Inspecti | on: | | | | Loss Contro | ol Incident: | | | | | |
| BOP Drill: | | | N | | Weather Co | onditions: | | | | | |
| Safety Meetin | • | | N | | | | | | | | |
| Sov't Inspecti | on: | | N | | | | | | | | |
| ast Casing S | lize: | | (in) | | Grade: | | | | | | |
| ast Casing V | | | (lb/ft) | | LOT EMW: | (ppg) | | | | | |
| Set TMD: | | | (ft) | | | | | | | | |
| | | | | | Operatio | ns Sumn | n ary | | | | |
| From | To Hours | Code | Subcode | Code 2 | Phase | | | Ĺ | Description | | |
| 6:00 16:0 | 00 10.00 | вор | 1 | Р | | Horizontal | Lateral | | | | |
| | | | - | | 1 | On 10/20/0 | 9- SICP = | 0#. Pump | 20 bbls of 2% K | CL water dov | vn the csg. |
| | | | 1 | | | l | | - | vs: Rabbit & tal | | _ |
| | | | | | 1 | following 2- | -7/8" tbg; B | arred NC; | 1 jt; SN; B-2 and | chor catcher; | 192 jts of 1 |
| | | | | | | | - | - | l tbg string that | | |
| | | | | | 1 | l* • | • | | 8rd J-55 6.5#. | | _ |
| | 1 | 1 | 1 | ı | 1 | anchar ud 1 | ARAH tamak | N 60 6064 | CNI (CA CACAL C | k Tbg Tail @ | 2100! |

Printed: 1/20/2010 3:36:32 PM

Page 2 of 2

Daily Completion Workover Report

 Well Name:
 BRENNAN 6
 Date:
 10/21/2009 Report:
 7
 DOL: 7.00

 Event Name:
 COMPLETION
 Start:
 10/13/2009 End:
 10/21/2009

Operations Summary

| From | To | Hours | Code | Subcode | Code 2 | Phase | Description |
|-------|-------|-------|------|---------|--------|-------|--|
| 06:00 | 16:00 | 10.00 | вор | 1 | P | | NUWH. |
| | | | | | | | 24 Hour Forecast: Will run rods. |
| | | | | | | | LLTR: 1073 bbls |
| | | | | | : | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# Casing Depth: 3-1/2" to 10078' MD |
| | | | | | | | |

Current Status: SICP = 0#. RIH w/ production string. ND BOP's & NU WH.

24hr Summary:

24hr Forecast: Run rods.



Questar E & P Page 1 of 2 **Daily Completion Workover Report** BRENNAN 6 10/22/2009 Report: **DOL: 8.00** Well Name: Date: Event Name: COMPLETION Start: 10/13/2009 End: 10/21/2009 General Information Offshore: Block: Location: 19-7-S 21-E 26 Slot: Country: UNITED STATES State/Prov: UTAH Spud Date: 7/8/1971 FLOWING OIL County: UINTAH Well Type: **BRENNAN BOTTOM** Well Status: **FINAL COMPLETION** Field: Summary Information Final Report: Y 9,100 Supervisor: JIM SIMONTON Daily Cost: Engineer: MIKE STAHL Cum. Cost: 108,100.00 AFE #: 32211 Pool: AFE Cost: 202,600 Zone: Interval: Daily Fluids Daily Oil Hauled On: (bbl) Cum: 0.00(bbl) Oil in Surface Tanks: (bbl) Daily H2O Hauled On: (bbl) Cum: 0.00(bbl) H2O in Surface Tanks: (bbl) Other in Surface Tanks: Cum: 0.00(scf)(scf) Daily Other Hauled On: (scf) Cum: 0.00(bbl) Oil Remaining to Recover: (bbl) Daily Oil Hauled Off: (bbl) Daily H2O Hauled Off: (bbl) Cum: 0.00(bbl) H2O Remaining to Recover: (bbl) Daily Other Hauled Off: (scf) Cum: 0.00(scf) Other Remaining to Recover: (bbl) Non Recoverable Annular Oil: (bbl) Cum: 0.00(bbl) Cum: 0.00(bbl) Non Recoverable Annular H2O: (bbl) 0.00(scf) Non Recoverable Annular Other: (scf) Cum: Safety Information Loss Control Incident: Daily Inspection: BOP Drill: N Weather Conditions: N Safety Meeting: N Gov't Inspection: Grade: Last Casing Size: (in) Last Casing Weight: (lb/ft) LOT EMW: (ppg) Set TMD: (ft) **Operations Summary** Subcode Code 2 Phase From To Hours Code Description 06:00 16:00 10.00 LOC Horizontal Lateral On 10/21/09 SITP & SICP = 10#. Bled off. Flush tog w/ hot oiler using 60 bbls of snake oil. Prime & test new pump @ surface. RIH w/ pump & rods (listed below). Seat pump & fill tbg w/ 5 bbls of water & long stroke pump in 800# & held OK. Space out pump w/ 18" f/ tag & 6' of polish rod left out. Clamp off rods. RDMO Basin WS. Turn well over to production department. Final report of lateral G-1 Completion.

Page 2 of 2

Daily Completion Workover Report

Well Name: BRENNAN 6 Date: 10/22/2009 Report: 8 DOL: 8.00

Event Name: COMPLETION Start: 10/13/2009 End: 10/21/2009

Operations Summary

| From | Tő | Hours. | Code | Subcode | Code 2 | Phase | Description |
|-------|-------|--------|------|---------|--------|-------|---|
| 06:00 | 16:00 | 10.00 | LOC | 4 | P | | |
| | | | | | | | LLTR: 1133 bbls |
| | | | | | | | Casing Size: 5-1/2" 15.5# and 3-1/2" 9.3# |
| | | | | | | | Casing Depth: 3-1/2" to 10078' MD |
| | | | | | | | Perfs: |
| | : | | | | | | 3-1/2" slotted liner 9.3# from 6114' to 10078' |
| | | | | | | | Tbg Detail: |
| | : | | | | | | KB = 16' |
| | | | | | | | Stretch = 1.30' |
| | | | | | | | 192 jts tbg = 6047.40' |
| | | 1 | | | | ļ | B-2 AC = 2.77' |
| | | | | | | | SN = 1.14' |
| | | | | | | | 1 Jt tbg = 31.69' |
| | | | | | | | Barred NC = 0.44 |
| | | | | | | | Tbg Tail @ 6100.74' |
| | | | | | | · . | SN @ 6067.47'; AC @ 6064.70' w/ 14M# tension. All tbg is used 2-7/8" |
| | | | | | | | EUE 8rd 6.5# J-55. |
| | | | | | | | |
| | | | | | | | Pump: 2-1/2"x1-3/4"x20'x23'x24' RHAC Weatherford w/ max stroke = 209' |
| | | | | | | | Pump #2520 |
| | | | | l | | } | 100 - 3/4" rods; 75 - 7/8" rods; 66 - 1" rods; no pony rods. 1-1/2" x 30' |
| | | | | | | | polish rod. All rods are Class "D" reconditioned. |
| | | | | | | | |
| | | 1 | [| | | | |
| | | | | | | | |

Current Status: SITP & SICP = 10#. Bled off. Flush tog w/ hot oiler using 60 bbls of snake oil. Prime & test new pump @ surface. RIH w/ pum pump. FINAL REPORT.

24hr Summary: 24hr Forecast:

Division of Oil, Gas and Mining OPERATOR CHANGE WORKSHEET

(for state use only)

| ROUTING | |
|---------|--|
| CDW | |

| Change of Operator (Well Sold) | | X - Operator Name Change | | | | | | |
|---|---|--------------------------|------------|------------------|----------------|-----------------|-----------|-----------|
| The operator of the well(s) listed below has chan | 6/14/2010 | | | | | | | |
| FROM: (Old Operator): N5085-Questar Exploration and Production Compa 1050 17th St, Suite 500 Denver, CO 80265 | TO: (New Operator): N3700-QEP Energy Company 1050 17th St, Suite 500 Denver, CO 80265 | | | | | | | |
| Phone: 1 (303) 308-3048 | | | | Phone: 1 (303) | 308-3048 | | | |
| CA No. | Unit: BRENNAN BOTTOM | | | | | | | |
| WELL NAME | SEC | TWN | RNG | API NO | ENTITY NO | LEASE TYPE | | WELL |
| SEE ATTACHED | | | | | 110 | | IIFE | STATUS |
| | | | | | | | | |
| OPERATOR CHANGES DOCUMENT. | ATI | ON | | | | | | |
| Enter date after each listed item is completed | | | | | | | | |
| 1. (R649-8-10) Sundry or legal documentation wa | s rece | eived fi | rom the | FORMER ope | erator on: | 6/28/2010 | | |
| 2. (R649-8-10) Sundry or legal documentation wa | s rece | eived fi | rom the | NEW operator | on: | 6/28/2010 | | |
| 3. The new company was checked on the Departr | nent | of Con | nmerce | , Division of C | orporations | Database on: | | 6/24/2010 |
| 4a. Is the new operator registered in the State of U | tah: | | I | Business Numbe | er: | 764611-0143 | | |
| 5a. (R649-9-2)Waste Management Plan has been re | | | | Requested | _ | | | |
| 5b. Inspections of LA PA state/fee well sites compl | ete oı | 1: | | n/a | _ | | | |
| 5c. Reports current for Production/Disposition & S | undri | es on: | | <u>ok</u> | _ | | | |
| 6. Federal and Indian Lease Wells: The BL | M and | d or th | e BIA h | as approved the | e merger, na | me change, | | |
| or operator change for all wells listed on Federa | ıl or I | ndian 1 | leases o | n: | BLM | 8/16/2010 | BIA | not yet |
| 7. Federal and Indian Units: | | | | | | • | | . • |
| The BLM or BIA has approved the successor | of un | it oper | ator for | wells listed on: | • | 8/16/2010 | | |
| 8. Federal and Indian Communization Agr | reem | ents (| "CA" |) : | | | | |
| The BLM or BIA has approved the operator f | or all | wells | listed w | rithin a CA on: | | N/A | | |
| 9. Underground Injection Control ("UIC" |) Di | vision | has ap | proved UIC F | orm 5 Trar | sfer of Authori | ity to | |
| Inject, for the enhanced/secondary recovery uni | it/pro | ect for | the wa | ter disposal wel | ll(s) listed o | | 6/29/2010 | |
| DATA ENTRY: | | | | • | (-) | ···· | 0/25/2010 | |
| 1. Changes entered in the Oil and Gas Database | on: | | | 6/30/2010 | | | | |
| 2. Changes have been entered on the Monthly Op | erato | r Cha | nge Spi | read Sheet on: | = | 6/30/2010 | | |
| 3. Bond information entered in RBDMS on: | | | 8 . | 6/30/2010 | • | 0/30/2010 | | |
| 4. Fee/State wells attached to bond in RBDMS on: | | | • | 6/30/2010 | - | | | |
| 5. Injection Projects to new operator in RBDMS o | | | • | 6/30/2010 | • | | | |
| 6. Receipt of Acceptance of Drilling Procedures for | | n/a | | | | | | |
| BOND VERIFICATION: | | | | | | | | |
| 1. Federal well(s) covered by Bond Number: | | | | ESB000024 | | | | |
| 2. Indian well(s) covered by Bond Number: | | | - | 965010693 | • | | | |
| 3a. (R649-3-1) The NEW operator of any state/fee | well | (s) liste | ed cove | red by Bond Nu | ımber | 965010695 | | |
| 3b. The FORMER operator has requested a release | of lia | bility | from th | eir bond on: | n/a | | | |
| LEASE INTEREST OWNER NOTIFICA | ATI | ON: | | | | | | |
| 4. (R649-2-10) The NEW operator of the fee wells | | | ntacted | and informed by | v a letter fro | m the Division | | |
| of their responsibility to notify all interest owners | s of th | is cha | nge on: | moimod 0 | n/a | m uic DIVISIUII | | |
| COMMENTS: | | | S | | AD 44 | | | |

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES

| | DIVISION OF OIL, GAS AND M | IINING | 5. LEASE DESIGNATION AND SERIAL NUMBER: See attached | | | | | |
|---|--|--|--|--|--|--|--|--|
| SUNDR | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME See attached | | | | | | | |
| Do not use this form for proposals to drill drill horizontal | 7. UNIT or CA AGREEMENT NAME: See attached | | | | | | | |
| 1 TYPE OF WELL OIL WELL | 8. WELL NAME and NUMBER: | | | | | | | |
| 2 NAME OF OPERATOR: | See attached 9. API NUMBER: | | | | | | | |
| Questar Exploration and 3. ADDRESS OF OPERATOR: | Attached | | | | | | | |
| 1050 17th Street, Suite 500 | 10. FIELD AND POOL, OR WILDCAT: See attached | | | | | | | |
| LOCATION OF WELL FOOTAGES AT SURFACE: See a | ttoob a d | | | | | | | |
| FOOTAGES AT SURFACE: See 2 | ntached | | COUNTY: Attached | | | | | |
| QTR/QTR, SECTION, TOWNSHIP, RA | NGE, MERIDIAN: | | STATE: UTAH | | | | | |
| 11 CHECK APP | ROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPO | RT, OR OTHER DATA | | | | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | | | | |
| NOTICE OF INTENT (Submit in Duplicate) | ACIDIZE | DEEPEN | REPERFORATE CURRENT FORMATION | | | | | |
| Approximate date work will start: | ALTER CASING CASING REPAIR | FRACTURE TREAT | SIDETRACK TO REPAIR WELL | | | | | |
| 6/14/2010 | CHANGE TO PREVIOUS PLANS | NEW CONSTRUCTION | TEMPORARILY ABANDON | | | | | |
| 0/14/2010 | CHANGE TUBING | OPERATOR CHANGE PLUG AND ABANDON | TUBING REPAIR | | | | | |
| SUBSEQUENT REPORT | CHANGE WELL NAME | PLUG BACK | VENT OR FLARE WATER DISPOSAL | | | | | |
| (Submit Original Form Only) | CHANGE WELL STATUS | PRODUCTION (START/RESUME) | WATER SHUT-OFF | | | | | |
| Date of work completion: | COMMINGLE PRODUCING FORMATIONS | RECLAMATION OF WELL SITE | ✓ OTHER: Operator Name | | | | | |
| | CONVERT WELL TYPE | RECOMPLETE - DIFFERENT FORMATION | Change | | | | | |
| 12 DESCRIBE PROPOSED OR CO | DMPLETED OPERATIONS. Clearly show all p | pertinent details including dates, depths, volume | es. etc. | | | | | |
| Effective June 14, 2010 Change involves only an inemployees will continue to continue to be covered by Federal Bond Number: 96 Utah State Bond Number: Fee Land Bond Number: 7994 The attached document is | ruestar Exploration and Production ternal corporate name change at the production being the properties of the production | on Company changed its name to and no third party change of operations described on the assessment in the properties described on the assessment in the second second in the second second in the seco | QEP Energy Company. This name tor is involved. The same attached list. All operations will | | | | | |
| NAME (PLEASE PRINT) Morgan Anderson TITLE Regulatory Affairs Analyst | | | | | | | | |
| GNATURE DATE 6/23/2010 | | | | | | | | |
| his space for State use only) | | | | | | | | |

RECEIVED JUN 2 8 2010

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700) BRENNAN BOTTOM effective June 14, 2010

| well_name | sec | twp | rng | api | entity | mineral | type |
|-----------------|-----|------|------|------------|--------|---------|------|
| | | | | | | lease | |
| BRENNAN 1 | 13 | 070S | 200E | 4304715417 | 5261 | Federal | OW |
| BRENNAN 3 | 17 | 070S | 210E | 4304715419 | 10750 | Federal | ow |
| BRENNAN 6 | 19 | 070S | 210E | 4304730109 | 5261 | Federal | OW |
| BRENNAN 8 | 17 | 070S | 210E | 4304731509 | 5290 | Federal | OW |
| BRENNAN 9 | 18 | 070S | 210E | 4304732477 | 5261 | Federal | OW |
| BRENNAN 10 | 19 | 070S | 210E | 4304732771 | 5261 | State | OW |
| BRENNAN 14 | 18 | 070S | 210E | 4304732774 | 5261 | Federal | OW |
| BRENNAN 12 | 18 | 070S | 210E | 4304732779 | 5261 | Federal | OW |
| BBW 11G-20-7-21 | 20 | 070S | 210E | 4304736516 | 15176 | Federal | OW |
| BRENNAN 2R | 18 | 070S | 210E | 4304740125 | | Federal | OW |
| BRENNAN 7R | 13 | 070S | | 4304740197 | 17632 | Federal | OW |
| BRENNAN 15 | 13 | 070S | | 4304740198 | 5261 | Federal | OW |

Bonds: BLM = ESB000024 BIA = 956010693 State = 965010695



United States Department of the Interior



BUREAU OF LAND MANAGEMENT Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155 http://www.blm.gov/ut/st/en.html

IN REPLY REFER TO: 3100 (UT-922)

JUL 2 8 2010

Memorandum

To:

Vernal Field Office, Price Field Office, Moab Field Office Roja L Bankert

From:

Chief, Branch of Minerals

Subject:

Name Change Recognized

Attached is a copy of the Certificate of Name Change issued by the Texas Secretary of State and a decision letter recognizing the name change from the Eastern States Office. We have updated our records to reflect the name change in the attached list of leases.

The name change from Questar Exploration and Production Company into QEP Energy Company is effective June 8, 2010.

cc:

MMS **UDOGM**

AUG 1 6 20:0

DN. OF OIL, Growing

| | FORM 9 | | | | | | | | | |
|--|--|--------------------------------|---|--|--|--|--|--|--|--|
| | 5.LEASE DESIGNATION AND SERIAL NUMBER: UTSL-065429 | | | | | | | | | |
| SUNDR | 6. IF INDIAN, ALLOTTEE OR TRIBE NAME: | | | | | | | | | |
| Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form | 7.UNIT or CA AGREEMENT NAME: BRENNAN BOTTOM | | | | | | | | | |
| 1. TYPE OF WELL Oil Well | 8. WELL NAME and NUMBER: BRENNAN 6 | | | | | | | | | |
| 2. NAME OF OPERATOR: QEP ENERGY COMPANY | 9. API NUMBER: 43047301090000 | | | | | | | | | |
| 3. ADDRESS OF OPERATOR: 11002 East 17500 South , | Vernal, Ut, 84078 303 | PHONE NUMBER: 308-3068 Ext | 9. FIELD and POOL or WILDCAT: BRENNAN BOTTOM | | | | | | | |
| 4. LOCATION OF WELL FOOTAGES AT SURFACE: 0835 FNL 0594 FWL | | | COUNTY: UINTAH | | | | | | | |
| QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWNW Section: | HIP, RANGE, MERIDIAN: 19 Township: 07.0S Range: 21.0E Mer | idian: S | STATE: UTAH | | | | | | | |
| 11. CHEC | K APPROPRIATE BOXES TO INDICA | TE NATURE OF NOTICE, REPOR | RT, OR OTHER DATA | | | | | | | |
| TYPE OF SUBMISSION | | TYPE OF ACTION | | | | | | | | |
| ✓ NOTICE OF INTENT | ACIDIZE | ALTER CASING | CASING REPAIR | | | | | | | |
| Approximate date work will start: | CHANGE TO PREVIOUS PLANS | CHANGE TUBING | CHANGE WELL NAME | | | | | | | |
| 10/20/2014 | CHANGE WELL STATUS | COMMINGLE PRODUCING FORMATIONS | CONVERT WELL TYPE | | | | | | | |
| SUBSEQUENT REPORT Date of Work Completion: | DEEPEN | FRACTURE TREAT | NEW CONSTRUCTION | | | | | | | |
| Jane of Monk Completion | OPERATOR CHANGE | PLUG AND ABANDON | PLUG BACK | | | | | | | |
| | PRODUCTION START OR RESUME | RECLAMATION OF WELL SITE | RECOMPLETE DIFFERENT FORMATION | | | | | | | |
| SPUD REPORT Date of Spud: | ✓ REPERFORATE CURRENT FORMATION | SIDETRACK TO REPAIR WELL | TEMPORARY ABANDON | | | | | | | |
| | TUBING REPAIR | VENT OR FLARE | ☐ WATER DISPOSAL | | | | | | | |
| DRILLING REPORT Report Date: | WATER SHUTOFF | SI TA STATUS EXTENSION | APD EXTENSION | | | | | | | |
| Report Date. | WILDCAT WELL DETERMINATION | OTHER | OTHER: | | | | | | | |
| 12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. QEP ENERGY COMPANY REQUESTS APPROVAL TO RECOMPLETE THE BRENNAN 6 BY ADDING ADDITIONAL PERFORATIONS TO THE GREEN RIVER FORMATION. SEE ATTACHED PROCEDURES. Date: | | | | | | | | | | |
| | | | By: Dork Out | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| NAME (PLEASE PRINT) | PHONE NUMB | ER TITLE | | | | | | | | |
| Benna Muth | 435 781-4320 | Regulatory Assistant | | | | | | | | |
| SIGNATURE N/A | | DATE 10/28/2014 | | | | | | | | |

Sundry Number: 57120 API Well Number: 43047301090000

QEP Energy requests approval to recomplete the Brennan 6 by adding additional perforations to the Green River formation as follows:

- 1. Set a CFP at 6110'.
- 2. Stage 1:
 - a. 6089'-6092', 3spf, frac with crosslink fluid.
 - b. 6053'-6056', 3spf, frac with crosslink fluid.
 - c. 6005'-6006', 3spf, frac with crosslink fluid.
 - d. 5970'-5971', 3spf, frac with crosslink fluid.
 - e. 5924'-5926', 3spf, frac with crosslink fluid.
 - f. 5900'-5901', 3spf, frac with crosslink fluid.
 - g. 5882'-5883', 3spf, frac with crosslink fluid.
 - h. 5873'-5875', 3spf, frac with crosslink fluid.
 - i. 5865'-5867', 3spf, frac with crosslink fluid.
- 3. Set a CPF at 5820'.
- 4. Stage 2:
 - a. 5777'-5779', 3spf, frac with crosslink fluid.
 - b. 5765'-5767', 3spf, frac with crosslink fluid.
 - c. 5751'-5752', 3spf, frac with crosslink fluid.
 - d. 5718'-5720', 3spf, frac with crosslink fluid.
 - e. 5694'-5696', 3spf, frac with crosslink fluid.
 - f. 5678'-5679', 3spf, frac with crosslink fluid.
 - g. 5664'-5665', 3spf, frac with crosslink fluid.
 - h. 5654'-5655', 3spf, frac with crosslink fluid.
 - i. 5644'-5645', 3spf, frac with crosslink fluid.
 - j. 5630'-5631', 3spf, frac with crosslink fluid.
 - k. 5612'-5613', 3spf, frac with crosslink fluid.
 - I. 5600'-5601', 3spf, frac with crosslink fluid.
- 5. Drill up top plug and flow well.
- 6. Drill up bottom frac plug (6110') after the frac fluid is recovered to restore existing production.